



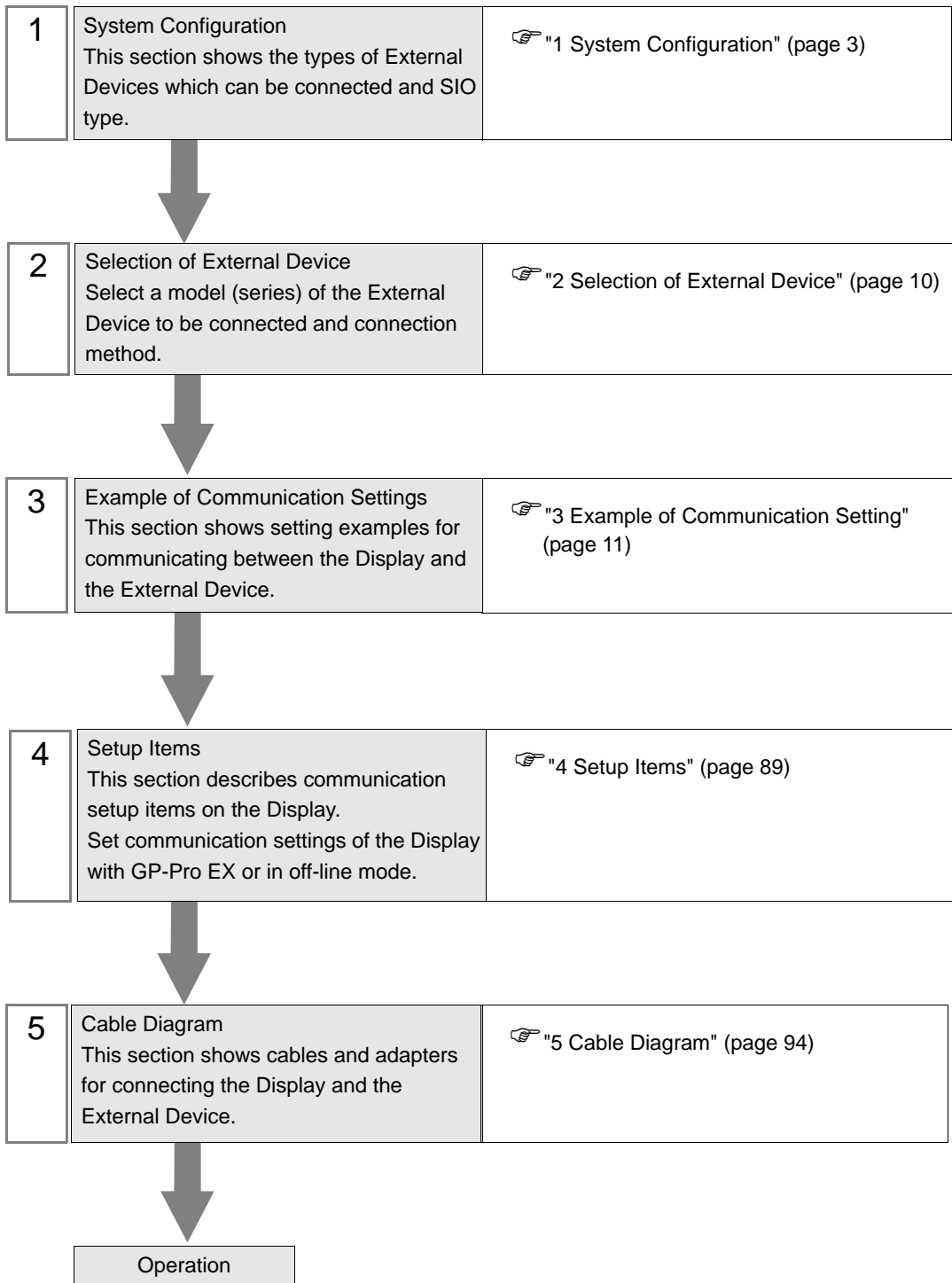
H Series Serial Driver

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PREFACE

This manual describes how to connect the Display and the External Device.

In this manual, the connection procedure will be described by following the below sections:



1 System Configuration

The system configuration in the case when the External Device of Hitach IES Co., Ltd. and the Display are connected is shown.

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram | |
|--------------------|--|--|----------------------|-----------------------------|------------------------------|------------------------------|
| H (Procedure 1) | H-20, H-28, H-40, H-64 | Port on the CPU unit | RS232C | Setting Example 1 (page 11) | " Cable Diagram 1" (page 94) | |
| | H-200(CPU-02H) ^{*1} H-250(CPU21-02H) ^{*1} H-252B(CPU22-02HB) ^{*1} | Port on the CPU unit | RS232C | Setting Example 1 (page 11) | " Cable Diagram 1" (page 94) | |
| | H-252C(CPU22-02HC) ^{*1 *2} | Port on the CPU unit | RS232C | Setting Example 1 (page 11) | " Cable Diagram 1" (page 94) | |
| | H-300(CPU-03Ha) ^{*1} H-700(CPU-07Ha) ^{*1} H-2000(CPU-20Ha) ^{*1} H-2002(CPU2-20H) ^{*1} | COMM-H COMM-2H | Port on the CPU unit | RS232C | Setting Example 1 (page 11) | " Cable Diagram 1" (page 94) |
| | | | RS232C | Setting Example 2 (page 13) | " Cable Diagram 1" (page 94) | |
| | | | RS422/485 (4wire) | Setting Example 3 (page 15) | " Cable Diagram 2" (page 96) | |
| | H-302(CPU2-03H) ^{*1} H-702(CPU2-07H) ^{*1} H-4010(CPU3-40H) ^{*1} | COMM-2H | Port on the CPU unit | RS232C | Setting Example 1 (page 11) | " Cable Diagram 1" (page 94) |
| | | | RS232C | Setting Example 2 (page 13) | " Cable Diagram 1" (page 94) | |
| | | | RS422/485 (4wire) | Setting Example 3 (page 15) | " Cable Diagram 2" (page 96) | |
| | H (Procedure 2) | H-300(CPU-03Ha) H-700(CPU-07Ha) H-2000(CPU-20Ha) H-302(CPU2-03H) H-702(CPU2-07H) H-2002(CPU2-20H) H-4010(CPU3-40H) | COMM-2H | RS232C | Setting Example 4 (page 17) | " Cable Diagram 1" (page 94) |
| RS422/485 (4wire) | | | | Setting Example 5 (page 19) | " Cable Diagram 2" (page 96) | |

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram |
|-------------------------|---|--|---------------------|------------------------------|-------------------------------|
| EH-150 (Procedure 1) | EH-150(EH-CPU104) EH-150(EH-CPU104A) EH-150(EH-CPU208) EH-150(EH-CPU208A) EH-150(EH-CPU308) EH-150(EH-CPU316) | Serial port 1 on the CPU unit Serial port 2 on the CPU unit | RS232C | Setting Example 6 (page 21) | " Cable Diagram 3" (page 100) |
| | EH-150(EH-CPU308A) EH-150(EH-CPU316A) EH-150(EH-CPU448) EH-150(EH-CPU448A) EH-150(EH-CPU516) EH-150(EH-CPU548) | Serial port 1 on the CPU unit | RS232C | Setting Example 6 (page 21) | " Cable Diagram 3" (page 100) |
| | | | RS422/485 (4wire) | Setting Example 7 (page 23) | Cable Diagram 4 (page 102) |
| | | | RS422/485 (2wire) | Setting Example 8 (page 25) | Cable Diagram 5 (page 106) |
| | | Serial port 2 on the CPU unit | RS232C | Setting Example 6 (page 21) | " Cable Diagram 3" (page 100) |
| | EH-150(EH-CPU516) EH-150(EH-CPU548) | Port1 on the EH-SIO unit*3 | RS232C | Setting Example 9 (page 27) | " Cable Diagram 3" (page 100) |
| | | | RS232C*4 | Setting Example 10 (page 29) | " Cable Diagram 3" (page 100) |
| | | Port2 on the EH-SIO unit*3 | RS422/485 (4wire)*4 | Setting Example 11 (page 31) | Cable Diagram 6 (page 113) |
| | | | RS422/485 (2wire)*4 | Setting Example 12 (page 33) | Cable Diagram 7 (page 117) |

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram | |
|--|---|--|------------------------|------------------------------|-------------------------------|-------------------------------|
| EH-150 (Procedure 2) | EH-150(EH-CPU104A) EH-150(EH-CPU208A) | Serial port 1 on the CPU unit | RS232C | Setting Example 13 (page 35) | " Cable Diagram 3" (page 100) | |
| | EH-150(EH-CPU308A) EH-150(EH-CPU316A) EH-150(EH-CPU448) EH-150(EH-CPU448A) EH-150(EH-CPU516) EH-150(EH-CPU548) | Serial port 1 on the CPU unit | RS232C | Setting Example 13 (page 35) | " Cable Diagram 3" (page 100) | |
| | | | RS422/485 (4wire) | Setting Example 14 (page 37) | Cable Diagram 4 (page 102) | |
| | | | RS422/485 (2wire) | Setting Example 15 (page 39) | Cable Diagram 5 (page 106) | |
| | EH-150(EH-CPU516) EH-150(EH-CPU548) | Port1 on the EH-SIO unit*3 | RS232C | Setting Example 16 (page 41) | " Cable Diagram 3" (page 100) | |
| | | | RS232C*4 | Setting Example 17 (page 43) | " Cable Diagram 3" (page 100) | |
| | | Port2 on the EH-SIO unit*3 | RS422/485 (4wire)*4 | Setting Example 18 (page 45) | Cable Diagram 6 (page 113) | |
| | | | RS422/485 (2wire)*4 | Setting Example 19 (page 47) | Cable Diagram 7 (page 117) | |
| | MICRO-EH (Procedure 1) | MICRO-EH(EH-D10□□□)*5 MICRO-EH(EH-A14□□□)*5 MICRO-EH(EH-D14□□□)*5 | Port 1 on the CPU unit | RS232C | Setting Example 20 (page 49) | " Cable Diagram 3" (page 100) |
| | | MICRO-EH(EH-A23□□□)*5 MICRO-EH(EH-D23□□□)*5 MICRO-EH(EH-A28□□□)*5 MICRO-EH(EH-D28□□□)*5 | Port 1 on the CPU unit | RS232C | Setting Example 20 (page 49) | " Cable Diagram 3" (page 100) |
| RS422/485 (4wire) | | | | Setting Example 21 (page 51) | Cable Diagram 8 (page 124) | |
| Port 2 on the CPU unit | | | RS422/485 (2wire) | Setting Example 22 (page 53) | Cable Diagram 9 (page 128) | |
| MICRO-EH(EH-A64□□)*5 MICRO-EH(EH-D64□□)*5 MICRO-EH(EH-A40□□)*5 MICRO-EH(EH-D40□□)*5 MICRO-EH(EH-A20□□)*5 MICRO-EH(EH-D20□□)*5 | | Port on the CPU unit | RS232C | Setting Example 20 (page 49) | " Cable Diagram 3" (page 100) | |
| | | EH-OB232*6 | RS232C | Setting Example 23 (page 55) | " Cable Diagram 3" (page 100) | |
| | | EH-OB485*7 | RS422/485 (4wire) | Setting Example 24 (page 57) | Cable Diagram 10 (page 135) | |
| | | | RS422/485 (2wire) | Setting Example 25 (page 59) | Cable Diagram 11 (page 139) | |

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram | |
|---------------------------|--|--|-----------------------------|------------------------------|-------------------------------|-------------------------------|
| MICRO-EH (Procedure 2) | MICRO-EH(EH-D10□□□)* ⁵ MICRO-EH(EH-A14□□□)* ⁵ MICRO-EH(EH-D14□□□)* ⁵ | Port 1 on the CPU unit | RS232C | Setting Example 26 (page 61) | " Cable Diagram 3" (page 100) | |
| | MICRO-EH(EH-A23□□□)* ⁵ MICRO-EH(EH-D23□□□)* ⁵ MICRO-EH(EH-A28□□□)* ⁵ MICRO-EH(EH-D28□□□)* ⁵ | Port 1 on the CPU unit | RS232C | Setting Example 26 (page 61) | " Cable Diagram 3" (page 100) | |
| | | Port 2 on the CPU unit | RS422/485 (4wire) | Setting Example 27 (page 63) | Cable Diagram 8 (page 124) | |
| | | | RS422/485 (2wire) | Setting Example 28 (page 65) | Cable Diagram 9 (page 128) | |
| | | MICRO-EH(EH-A64□□)* ⁵ MICRO-EH(EH-D64□□)* ⁵ MICRO-EH(EH-A40□□)* ⁵ MICRO-EH(EH-D40□□)* ⁵ MICRO-EH(EH-A20□□)* ⁵ MICRO-EH(EH-D20□□)* ⁵ | Port on the CPU unit | RS232C | Setting Example 26 (page 61) | " Cable Diagram 3" (page 100) |
| | EH-OB232* ⁶ | | RS232C | Setting Example 29 (page 67) | " Cable Diagram 3" (page 100) | |
| | EH-OB485* ⁷ | | RS422/485 (4wire) | Setting Example 30 (page 69) | Cable Diagram 10 (page 135) | |
| | | | RS422/485 (2wire) | Setting Example 31 (page 71) | Cable Diagram 11 (page 139) | |
| | Web controller (Procedure 1 and 2) | EH-WD10DR EH-WA23DR | Serial port on the CPU unit | RS232C | Setting Example 32 (page 73) | " Cable Diagram 3" (page 100) |

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram |
|-------------------------------|---|--|----------------------|------------------------------------|----------------------------------|
| EHV (Procedure 1 and 2) | EHV-CPU128 EHV-CPU64 EHV-CPU32 EHV-CPU16 | Serial port on the CPU unit | RS232C | Setting Example 33 (page 75) | Cable Diagram 3 (page 100) |
| | | | RS422/485 (4wire) | Setting Example 34 (page 77) | Cable Diagram 4 (page 102) |
| | | | R422/S485 (2wire) | Setting Example 35 (page 79) | Cable Diagram 5 (page 106) |
| | | Port 1 on the EH-SIO unit ^{*3} | RS232C | Setting Example 36 (page 81) | Cable Diagram 3 (page 100) |
| | | Port 2 on the EH-SIO unit ^{*3} | RS232C | Setting Example 37 (page 83) | Cable Diagram 3 (page 100) |
| | | | RS422/485 (4wire) | Setting Example 38 (page 85) | Cable Diagram 6 (page 113) |
| | | | RS422/485 (2wire) | Setting Example 39 (page 87) | Cable Diagram 7 (page 117) |

*1 Connect to the peripheral port on the CPU module.

- *2 When the peripheral port 2 on the CPU unit is used, CNCOM-05 conversion cable by Hitachi IES Co., Ltd. needs to be used between the 8 pin connector and D-sub 15 pin connector.
- *3 Version 2.0 or later of the EH-SIO software supports Procedure 1; version 2.1 or later supports Procedure 2. Furthermore, only EH-CPU548(Ver.E402 or later)/EH-CPU516(Ver.E202 or later) can use EH-SIO.
- *4 Bit8 is used for interface selection of Port2 (RS232C or RS422/485).
- *5 Model No. of the External Device "□" differs depending on the specification of each External Device.
- *6 Communication board (RS232C).Can be used in the CPU of which version is Ver.0101 or later.
- *7 Communication board (RS422/RS485).Can be used in the CPU of which version is Ver.0100 or later.

■ COM Port of IPC

When connecting IPC with External Device, the COM port which can be used changes with series and SIO type. Please refer to the manual of IPC for details.

Usable port

| Series | Usable port | | |
|------------------------------------|--|--------------------|--------------------|
| | RS-232C | RS-422/485(4 wire) | RS-422/485(2 wire) |
| PS-2000B | COM1 ^{*1} , COM2, COM3 ^{*1} , COM4 | - | - |
| PS-3650A, PS-3651A | COM1 ^{*1} | - | - |
| PS-3700A (Pentium®4-M) PS-3710A | COM1 ^{*1} , COM2 ^{*1} , COM3 ^{*2} , COM4 | COM3 ^{*2} | COM3 ^{*2} |
| PS-3711A | COM1 ^{*1} , COM2 ^{*2} | COM2 ^{*2} | COM2 ^{*2} |

*1 The RI/5V can be switched. Please switch with the change switch of IPC.

*2 It is necessary to set up the SIO type with the Dip switch. Please set up as follows according to SIO type to be used.

Dip switch setting: RS-232C

| Dip switch | Setting | Description |
|------------|---------|--|
| 1 | OFF | Reserve (always OFF) |
| 2 | OFF | SIO type: RS-232C |
| 3 | OFF | |
| 4 | OFF | Output mode of SD (TXD) data: Always output |
| 5 | OFF | Terminal resistance (220Ω) insertion to SD (TXD): None |
| 6 | OFF | Terminal resistance (220Ω) insertion to RD (RXD): None |
| 7 | OFF | Short-circuit of SDA (TXA) and RDA (RXA): Does not Exist |
| 8 | OFF | Short-circuit of SDB (TXB) and RDB (RXB): Does not Exist |
| 9 | OFF | RS (RTS) Auto control mode: Disable |
| 10 | OFF | |

Dip switch setting: RS-422/485 (4 wire)

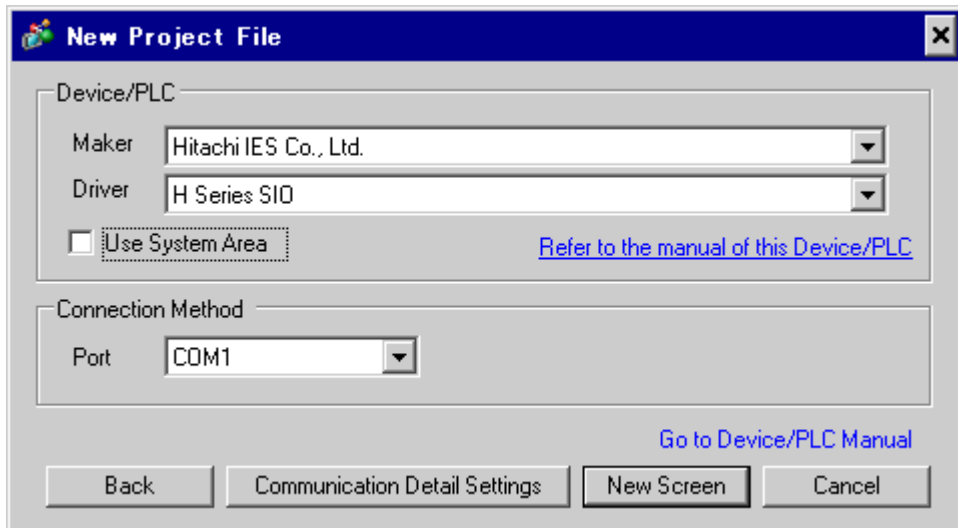
| Dip switch | Setting | Description |
|------------|---------|--|
| 1 | OFF | Reserve (always OFF) |
| 2 | ON | SIO type: RS-422/485 |
| 3 | ON | |
| 4 | OFF | Output mode of SD (TXD) data: Always output |
| 5 | OFF | Terminal resistance (220Ω) insertion to SD (TXD): None |
| 6 | OFF | Terminal resistance (220Ω) insertion to RD (RXD): None |
| 7 | OFF | Short-circuit of SDA (TXA) and RDA (RXA): Does not Exist |
| 8 | OFF | Short-circuit of SDB (TXB) and RDB (RXB): Does not Exist |
| 9 | OFF | RS (RTS) Auto control mode: Disable |
| 10 | OFF | |

Dip switch setting: RS-422/485 (2 wire)

| Dip switch | Setting | Description |
|------------|---------|--|
| 1 | OFF | Reserve (always OFF) |
| 2 | ON | SIO type: RS-422/485 |
| 3 | ON | |
| 4 | OFF | Output mode of SD (TXD) data: Always output |
| 5 | OFF | Terminal resistance (220Ω) insertion to SD (TXD): None |
| 6 | OFF | Terminal resistance (220Ω) insertion to RD (RXD): None |
| 7 | ON | Short-circuit of SDA (TXA) and RDA (RXA): Exist |
| 8 | ON | Short-circuit of SDB (TXB) and RDB (RXB): Exist |
| 9 | ON | RS (RTS) Auto control mode: Enable |
| 10 | ON | |

2 Selection of External Device

Select the External Device to be connected to the Display.



| Setup Items | Setup Description |
|-----------------|--|
| Maker | Select the maker of the External Device to be connected. Select "Hitachi IES Co., Ltd." |
| Driver | Select a model (series) of the External Device to be connected and connection method. Select "H Series SIO". Check the External Device which can be connected in "H Series SIO" in system configuration. ☞ "1 System Configuration" (page 3) |
| Use System Area | Check this option when you synchronize the system data area of the Display and the device (memory) of the External Device. When synchronized, you can use the ladder program of the External Device to switch the display or display the window on the Display. Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (only for direct access method)" This can be also set with GP-Pro EX or in off-line mode of the Display. Cf. GP-Pro EX Reference Manual "5.14.6[Setting Guide of [System Setting Window], Setting Guide of [Main Unit Settings], System Area Setting" Cf. Maintenance/Troubleshooting "2.14.1 Settings common to all Display models ◆System Area Settings" |
| Port | Select the Display port to be connected to the External Device. |

3 Example of Communication Setting

Examples of communication settings of the Display and the External Device, recommended by Digital Electronics Corp., are shown.

3.1 Setting Example 1

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit: H-4010 only)

Use the switch on the CPU unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Mode Setting Switch

- DIPSW1

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | OFF | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | Port 2 Transmission Speed: 19,200 bps |

NOTE • Other transmission speed settings are shown below.

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | ON | Port 1 Transmission Speed: 38,400 bps |
| SW04 | ON | Port 2 Transmission Speed: 38,400 bps |

3.2 Setting Example 2

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device(COMM-H, COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Communication Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---|
| 01 | OFF | Bit Length: 7 bits |
| 02 | ON | Baud Rate Transmission Speed: 19,200bps |
| 03 | ON | |
| 04 | ON | |
| 05 | ON | Parity Enable/Disable: Enable |
| 06 | ON | Parity Even/Odd: Even |
| 07 | OFF | Stop Bit Length: 1 bit |
| 08 | ON | Sum Check: Enable |

◆ Station Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|--|
| x10 | 0 | Station No. of External Device (tenth digit) |
| x1 | 0 | Station No. of External Device (first digit) |

◆ Mode Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|------------------------|
| MODE | 2 | Procedure: Procedure 1 |

3.3 Setting Example 3

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (COMM-H, COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Communication Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---|
| 01 | OFF | Bit Length: 7 bits |
| 02 | ON | Baud Rate Transmission Speed: 19,200bps |
| 03 | ON | |
| 04 | ON | |
| 05 | ON | Parity Enable/Disable: Enable |
| 06 | ON | Parity Even/Odd: Even |
| 07 | OFF | Stop Bit Length: 1 bit |
| 08 | ON | Sum Check: Enable |

◆ Station Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|--|
| x10 | 0 | Station No. of External Device (tenth digit) |
| x1 | 0 | Station No. of External Device (first digit) |

◆ Mode Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|------------------------|
| MODE | 2 | Procedure: Procedure 1 |

3.4 Setting Example 4

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Communication Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---|
| 01 | OFF | Bit Length: 7 bits |
| 02 | ON | Baud Rate Transmission Speed: 19,200bps |
| 03 | ON | |
| 04 | ON | |
| 05 | ON | Parity Enable/Disable: Enable |
| 06 | ON | Parity Even/Odd: Even |
| 07 | OFF | Stop Bit Length: 1 bit |
| 08 | ON | Sum Check: Enable |

◆ Station Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|--|
| x10 | 0 | Station No. of External Device (tenth digit) |
| x1 | 0 | Station No. of External Device (first digit) |

◆ Mode Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|------------------------|
| MODE | 9 | Procedure: Procedure 2 |

3.5 Setting Example 5

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Communication Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---|
| 01 | OFF | Bit Length: 7 bits |
| 02 | ON | Baud Rate Transmission Speed: 19,200bps |
| 03 | ON | |
| 04 | ON | |
| 05 | ON | Parity Enable/Disable: Enable |
| 06 | ON | Parity Even/Odd: Even |
| 07 | OFF | Stop Bit Length: 1 bit |
| 08 | ON | Sum Check: Enable |

◆ Station Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|--|
| x10 | 0 | Station No. of External Device (tenth digit) |
| x1 | 0 | Station No. of External Device (first digit) |

◆ Mode Setting Rotary Switch

| Rotary Switch | Settings | Description |
|---------------|----------|------------------------|
| MODE | 9 | Procedure: Procedure 2 |

3.6 Setting Example 6

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS232C (Procedure 1) by entering 8000(H) in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Mode Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|--|
| SW03 | ON | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | |
| SW05 | ON | Port 1 Operation: Specified port |
| SW06 | OFF | Port 2 Transmission Speed*1: 4,800 bps or 19,200 bps |

*1 When setting the transmission speed of Port 2 to 19,200 bps or 38,400 bps, set the port change switch to High(ON).

Transmission speed of Port 2 will be set with SW06 and PHL switches.

◆ Port Change Switch

| PHL Switch | Settings | Description |
|------------|----------|------------------|
| PHL Switch | ON | Port 2 Operation |

- NOTE**
- When the change switch is ON, PHL signal becomes High(ON).
 - Other transmission speed settings are shown below.

< Port 1 >

| SW03 | SW04 | SW05 | Transmission Speed |
|------|------|------|--------------------|
| ON | ON | ON | 4,800 bps |
| OFF | ON | ON | 9,600 bps |
| OFF | OFF | ON | 38,400 bps |

< Port 2 >

| SW06 | PHL | Speed Speed |
|------|-----|-------------|
| OFF | OFF | 4,800 bps |
| ON | OFF | 9,600 bps |
| ON | ON | 38,400 bps |

3.7 Setting Example 7

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 1) by entering A100(H)^{*1} in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter B100(H). In addition, enter the Station No. set on the Display in lower 2 digits of A100 (or B100)

◆ Mode Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | ON | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | |
| SW05 | ON | Port 1 Operation: Specified port |

NOTE • Other transmission speed settings are shown below.

| SW03 | SW04 | SW05 | Speed |
|------|------|------|------------|
| ON | ON | ON | 4,800 bps |
| OFF | ON | ON | 9,600 bps |
| OFF | OFF | ON | 38,400 bps |

3.8 Setting Example 8

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 1) by entering A200(H)^{*1} in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter B200(H). In addition, enter the Station No. set on the Display in lower 2 digits of A200 (or B200)

◆ Mode Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | ON | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | |
| SW05 | ON | Port 1 Operation: Specified port |

NOTE • Other transmission speed settings are shown below.

| SW03 | SW04 | SW05 | Speed Speed |
|------|------|------|-------------|
| ON | ON | ON | 4,800 bps |
| OFF | ON | ON | 9,600 bps |
| OFF | OFF | ON | 38,400 bps |

3.9 Setting Example 9

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | OFF | Always OFF |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.10 Setting Example 10

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | OFF | Interface Type: RS232C |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.11 Setting Example 11

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | ON | Interface Type: RS422/RS485 |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.12 Setting Example 12

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | ON | Interface Type: RS422/RS485 |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.13 Setting Example 13

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS232C (Procedure 2) by entering C000(H) in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

◆ Mode Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | ON | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | |
| SW05 | ON | Port 1 Operation: Specified port |

NOTE • Other transmission speed settings are shown below.

| SW03 | SW04 | SW05 | Speed Speed |
|------|------|------|-------------|
| ON | ON | ON | 4,800 bps |
| OFF | ON | ON | 9,600 bps |
| OFF | OFF | ON | 38,400 bps |

3.14 Setting Example 14

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 2) by entering E100(H)^{*1} in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter F100(H). In addition, enter the Station No. set on the Display in lower 2 digits of E100 (or F100)

◆ Mode Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | ON | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | |
| SW05 | ON | Port 1 Operation: Specified port |

NOTE • Other transmission speed settings are shown below.

| SW03 | SW04 | SW05 | Speed Speed |
|------|------|------|-------------|
| ON | ON | ON | 4,800 bps |
| OFF | ON | ON | 9,600 bps |
| OFF | OFF | ON | 38,400 bps |

3.15 Setting Example 15

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 2) by entering E200(H)^{*1} in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter F200(H). In addition, enter the Station No. set on the Display in lower 2 digits of E200 (or F200)

◆ Mode Setting Switch

| DIP Switch | Settings | Description |
|------------|----------|---------------------------------------|
| SW03 | ON | Port 1 Transmission Speed: 19,200 bps |
| SW04 | OFF | |
| SW05 | ON | Port 1 Operation: Specified port |

NOTE • Other transmission speed settings are shown below.

| SW03 | SW04 | SW05 | Speed Speed |
|------|------|------|-------------|
| ON | ON | ON | 4,800 bps |
| OFF | ON | ON | 9,600 bps |
| OFF | OFF | ON | 38,400 bps |

3.16 Setting Example 16

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | OFF | Always OFF |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.17 Setting Example 17

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | OFF | Interface Type: RS232C |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.18 Setting Example 18

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | ON | Interface Type: RS422/RS485 |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.19 Setting Example 19

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | ON | Interface Type: RS422/RS485 |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.20 Setting Example 20

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch inside the front cover of the External Device to enable the communication with the ladder software.

Set as the following table.

| DIP Switch | Settings | Description |
|------------|----------|---|
| SW01 | ON | Transmission Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| SW02 | OFF | |
| SW03 | OFF | |
| SW04 | OFF | |

2. Set 0000(H) in I/O No.WRF01A and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

• WRF01A

| Limit Bit | Settings | Description |
|-----------|----------|-------------|
| 15 | 0 | Procedure 1 |

• R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

3. Turn ON the power of the External Device again.

3.21 Setting Example 21

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 0 | Procedure 1 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.22 Setting Example 22

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 0 | Procedure 1 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.23 Setting Example 23

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-OB232)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|----------|--|
| 15 | 1*1 | Setting Change Request |
| 14 | 0 | Procedure 1 |
| 13 | 0 | Station No.: Disable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.24 Setting Example 24

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 0 | Procedure 1 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.25 Setting Example 25

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 0 | Procedure 1 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.26 Setting Example 26

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch inside the front cover of the External Device to enable the communication with the ladder software.

Set as the following table.

| DIP Switch | Settings | Description |
|------------|----------|--|
| SW01 | ON | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| SW02 | OFF | |
| SW03 | OFF | |
| SW04 | OFF | |

2. Set 8000(H) in I/O No.WRF01A and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF01A

| Limit Bit | Settings | Description |
|-----------|----------|-------------|
| 15 | 1 | Procedure 2 |

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

3. Turn ON the power of the External Device again.

3.27 Setting Example 27

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 1 | Procedure 2 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.28 Setting Example 28

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 1 | Procedure 2 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.29 Setting Example 29

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-OB232)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|----------|--|
| 15 | 1*1 | Setting Change Request |
| 14 | 1 | Procedure 2 |
| 13 | 0 | Station No.: Disable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.30 Setting Example 30

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 1 | Procedure 2 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.31 Setting Example 31

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------------------|
| 1 | PLC1 | Series=H Series,Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.

- WRF03D

| Limit Bit | Settings | Description |
|-----------|-----------------|--|
| 15 | 1 ^{*1} | Setting Change Request |
| 14 | 1 | Procedure 2 |
| 13 | 1 | Station No.: Enable |
| 11 to 8 | 0010(H) | Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 7 to 0 | 0 | Station No. ^{*2} |

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

- R7F6

| Limit Bit | Settings | Description |
|-----------|----------|-------------------------|
| - | 1 | Writing in FLASH memory |

2. Turn ON the power of the External Device again.

3.32 Setting Example 32

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|------------------------------|
| 1 | PLC1 | Series=Web Controller Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Web controller)

Use the Web Browser to access the External Device for communication setting. Please refer to the manual of the External Device for more details.

◆ Procedure

Please refer to the manual of the Web controller for more details.

1. If you set the operation mode setting switch of the External Device as follows, the temporary IP address of the Ethernet port will be set to 192.168.0.1.

<Operation Mode Setting Switch>

- EH-WD10DR: Set the rotary switch to "2"
- EH-WA23DR: Set only the DIP switch4 to ON

2. Use the LAN cable to connect the Ethernet port of PC to the Ethernet port of the Web controller.(connect via HUB or with the cross cable directly.)
3. Enter "http://192.168.0.1/mwconfig.cgi" in the address input box of the Web Browser to access the External Device.

To access, you need to set the upper 3 bytes of PC's IP address to 192.168.0.. (ex. 192.168.0.10)

4. Login in the displayed System Configuration Login screen.
5. Select [Serial Protocol]-[Passive HIProtocol] from [System Configuration] on the displayed screen for communication settings. After settings, click [SET] to confirm the setting values.

Serial-Passive HIProtocol

| Setup Items | Setting Value |
|--------------------------------|------------------------------|
| Interface Type | RS232C |
| Transmission Control Procedure | Procedure1 1:1 ^{*1} |
| Transmission Speed | 19.2 kbps |
| Station No. | 0 |

*1 To use Procedure 2, select [Procedure2 1:1].

6. Set the operation mode setting switch of the External Device and turn ON the power again.

<Operation Mode Setting Switch>

- EH-WD10DR: Set the rotary switch to "0"
- EH-WA23DR: Set all the DIP switch to OFF

3.33 Setting Example 33

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------|
| 1 | PLC1 | Series=EHV Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the programming software (Control Editor) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Start the programming software and create the project. The project is displayed in the offline mode.
2. Select [Editor Communication Setting] from the [Tool] menu to display the communication setting dialog box.
3. Select either "USB" or "Serial" for the communication method to transfer the communication setting to the External Device and click [Setting].
4. Use the USB cable or serial cable (by Hitachi IES Co., Ltd.) to connect PC to the External Device.
5. Select [Mode Change] - [Online] from the [Online] menu to move to the online mode.
6. Select [CPU Settings] - [Serial Communication Settings] from the [Tool] menu to perform the communication settings.

• CPU Communication Settings (Serial Communication Settings)

| Setup Items | Settings |
|-------------------------------|---------------------------------|
| Serial Communication Settings | Specified |
| Port Type | RS232C |
| Speed | 19.2 kbps |
| Communication Procedure | Procedure 1 (1:1) ^{*1} |

*1 To use Procedure 2 for communication, select [Procedure 2 (1:1)].

7. Turn ON the power of the External Device again.

3.34 Setting Example 34

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|----------------------------------|
| 1 | PLC1 | Series=EHV Series, Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the programming software (Control Editor) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Start the programming software and create the project. The project is displayed in the offline mode.
2. Select [Editor Communication Setting] from the [Tool] menu to display the communication setting dialog box.
3. Select either "USB" or "Serial" for the communication method to transfer the communication setting to the External Device and click [Setting].
4. Use the USB cable or serial cable (by Hitachi IES Co., Ltd.) to connect PC to the External Device.
5. Select [Mode Change] - [Online] from the [Online] menu to move to the online mode.
6. Select [CPU Settings] - [Serial Communication Settings] from the [Tool] menu to perform the communication settings.

• CPU Communication Settings (Serial Communication Settings)

| Setup Items | Settings |
|-------------------------------|---|
| Serial Communication Settings | Specified |
| Port Type | RS422/RS485 |
| Speed | 19.2 kbps |
| Communication Procedure | Procedure 1 (1:n) ^{*1} |
| Station No. | Enter the Station No. set on the display. ^{*2} |

*1 To use Procedure 2 for communication, select [Procedure 2 (1:n)].

*2 If you set the Station No. to "None", communication is not available.

7. Turn ON the power of the External Device again.

3.35 Setting Example 35

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|----------------------------------|
| 1 | PLC1 | Series=EHV Series, Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (Serial port on the CPU unit)

Use the programming software (Control Editor) for communication settings. Please refer to the manual of the External Device for more details.

◆ Procedure

1. Start the programming software and create the project. The project is displayed in the offline mode.
2. Select [Editor Communication Setting] from the [Tool] menu to display the communication setting dialog box.
3. Select either "USB" or "Serial" for the communication method to transfer the communication setting to the External Device and click [Setting].
4. Use the USB cable or serial cable (by Hitachi IES Co., Ltd.) to connect PC to the External Device.
5. Select [Mode Change] - [Online] from the [Online] menu to move to the online mode.
6. Select [CPU Settings] - [Serial Communication Settings] from the [Tool] menu to perform the communication settings.

• CPU Communication Settings (Serial Communication Settings)

| Setup Items | Settings |
|-------------------------------|---|
| Serial Communication Settings | Specified |
| Port Type | RS422/RS485 |
| Speed | 19.2 kbps |
| Communication Procedure | Procedure 1 (1:n) ^{*1} |
| Station No. | Enter the Station No. set on the display. ^{*2} |

*1 To use Procedure 2 for communication, select [Procedure 2 (1:n)].

*2 If you set the Station No. to "None", communication is not available.

7. Turn ON the power of the External Device again.

3.36 Setting Example 36

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------|
| 1 | PLC1 | Series=EHV Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.
 - Communication Setting Switch 1 (for Port 1)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | OFF | Always OFF |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.37 Setting Example 37

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|-------------------|
| 1 | PLC1 | Series=EHV Series |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.
 - Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | OFF | Interface Type: RS232C |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.38 Setting Example 38

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SID Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|----------------------------------|
| 1 | PLC1 | Series=EHV Series, Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.
 - Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | ON | Interface Type: RS422/RS485C |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.39 Setting Example 39

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC


In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)

| No. | Device Name | Settings |
|-----|-------------|----------------------------------|
| 1 | PLC1 | Series=EHV Series, Station No.=0 |

◆ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

1. Use the DIP switch on the EH-SIO for communication settings.
 - Communication Setting Switch 2 (for Port 2)

| DIP Switch | Settings | Description |
|------------|----------|--|
| 01 | OFF | Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings. |
| 02 | ON | |
| 03 | ON | |
| 04 | ON | |
| 05 | OFF | Transmission character configuration settings Data Length: 7 bits Stop Bit: 1 bit Parity: Even |
| 06 | ON | |
| 07 | OFF | |
| 08 | ON | Interface Type: RS422/RS485C |

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

4 Setup Items

Set communication settings of the Display with GP-Pro Ex or in off-line mode of the Display.

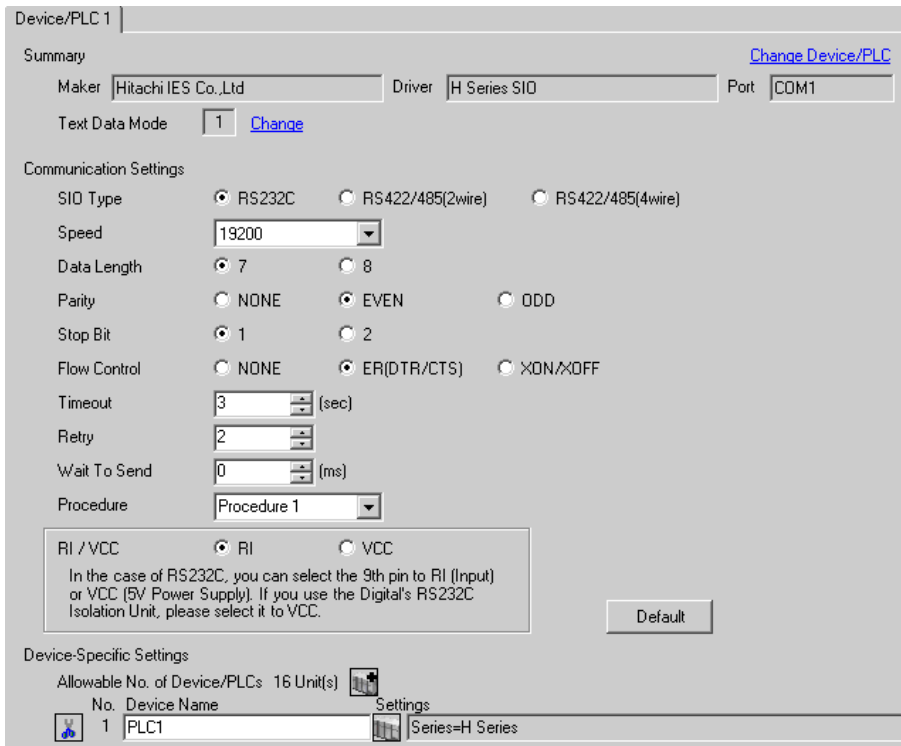
The setting of each parameter must be identical to that of External Device.

☞ "3 Example of Communication Setting" (page 11)

4.1 Setup Items in GP-Pro EX

■ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



Device/PLC 1

Summary [Change Device/PLC](#)

Maker Driver Port

Text Data Mode [Change](#)

Communication Settings

SIO Type RS232C RS422/485(2wire) RS422/485(4wire)

Speed

Data Length 7 8

Parity NONE EVEN ODD

Stop Bit 1 2

Flow Control NONE ER(DTR/CTS) XON/XOFF

Timeout (sec)

Retry

Wait To Send (ms)

Procedure

RI / VCC RI VCC

In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.

Device-Specific Settings

Allowable No. of Device/PLCs 16 Unit(s)


| No. | Device Name | Settings |
|-----|-------------|-----------------|
| 1 | PLC1 | Series=H Series |


| Setup Items | Setup Description |
|--------------|---|
| SIO Type | Select the SIO type to communicate with the External Device. |
| Speed | Select speed between the External Device and the Display. |
| Data Length | Select data length. |
| Parity | Select how to check parity. |
| Stop Bit | Select stop bit length. |
| Flow Control | Select the communication control method to prevent overflow of transmission and reception data. |
| Timeout | Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device. |

Continues to the next page.

| Setup Items | Setup Description |
|--------------|---|
| Retry | In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command. |
| Wait To Send | Use an integer from "0 to 255" to enter standby time (ms) for the Display from receiving packets to transmitting next commands. |
| Procedure | Select the transmission control procedure on the External Device. |
| RI/VCC | You can switch RI/VCC of the 9th pin when you select RS232C for SIO type. It is necessary to change RI/5V by changeover switch of IPC when connect with IPC. Please refer to the manual of the IPC for more detail. |

■ Device Setting

To display the setting screen, click  ([Setting]) of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].

When connecting multiple External Devices, you can click  from [Device-Specific Settings] of [Device/PLC Settings] to add the External Device which is available to set.



| Setup Items | Setup Description |
|-------------|--|
| Series | Selects a model of the External Device. |
| Station No. | Enter the unit No. of the External Device. |

4.2 Settings in Off-Line Mode

NOTE • Please refer to Maintenance/Troubleshooting for more information on how to enter off-line mode or about operation.

Cf. Maintenance/Troubleshooting "2.2 Offline Mode"

■ Communication Settings

To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings] in the off-line mode. Touch the External Device you want to set from the displayed list.

| Comm. | Device | Option | | |
|------------------|--|--------|----------|------------------------|
| H Series SIO | | [COM1] | Page 1/1 | |
| SIO Type | RS232C | | | |
| Speed | 19200 | | | |
| Data Length | <input checked="" type="radio"/> 7 <input type="radio"/> 8 | | | |
| Parity | <input type="radio"/> NONE <input checked="" type="radio"/> EVEN <input type="radio"/> ODD | | | |
| Stop Bit | <input checked="" type="radio"/> 1 <input type="radio"/> 2 | | | |
| Flow Control | ER(DTR/CTS) | | | |
| Timeout(s) | 3 | | | |
| Retry | 2 | | | |
| Wait To Send(ms) | 0 | | | |
| Procedure | Procedure 1 | | | |
| Exit | | Back | | 2006/05/15 11:31:09 |

| Setup Items | Setup Description |
|--------------|--|
| SIO Type | Select the SIO type to communicate with the External Device. IMPORTANT To make the communication settings correctly, confirm the serial interface specifications of Display unit for [SIO Type]. We cannot guarantee the operation if a communication type that the serial interface does not support is specified. For details concerning the serial interface specifications, refer to the manual for Display unit. |
| Speed | Select speed between the External Device and the Display. |
| Data Length | Select data length. |
| Parity | Select how to check parity. |
| Stop Bit | Select stop bit length. |
| Flow Control | Select the communication control method to prevent overflow of transmission and reception data. |
| Timeout | Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device. |

| Setup Items | Setup Description |
|--------------|--|
| Retry | In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command. |
| Wait To Send | Use an integer from "0 to 255" to enter standby time (ms) for the Display from receiving packets to transmitting next commands. |
| Procedure | Select the transmission control procedure on the External Device. |

■ Device Setting

To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings]. Touch the External Device you want to set from the displayed list, and touch [Device Settings].

| Comm. | Device | Option | | |
|-----------------|-----------|--------|------|------------------------|
| H Series SIO | [COM1] | | | Page 1/1 |
| Device/PLC Name | [PLC1] ▼ | | | |
| Series | H Series | | | |
| Station No. | [0] ▼ ▲ | | | |
| | Exit | | Back | 2006/05/15 11:31:12 |

| Setup Items | Setup Description |
|-----------------|---|
| Device/PLC name | Select the External Device to set. Device name is a title of the External Device set with GP-Pro EX. (Initial value [PLC1]) |
| Series | Displays a model of the External Device. |
| Station No. | Enter the unit No. of the External Device. |

■ Option

To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings]. Touch the External Device you want to set from the displayed list, and touch [Option].

| Comm. | Device | Option | | |
|---|--------|--------|--------|------------------------|
| H Series S10 | | | [COM1] | Page 1/1 |
| RI / VCC ● RI ● VCC In the case of RS232C, you can select the 9th pin to RI(Input) or VCC(5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. | | | | |
| | Exit | | Back | 2006/05/15 11:31:14 |

| Setup Items | Setup Description |
|-------------|---|
| RI/VCC | Switches RI/VCC of the 9th pin. It is necessary to change RI/5V by changeover switch of IPC when connect with IPC. Please refer to the manual of the IPC for more detail. |

5 Cable Diagram

The cable diagram shown below may be different from the cable diagram recommended by Hitachi IES Co., Ltd. Please be assured there is no operational problem in applying the cable diagram shown in this manual.

- The FG pin of the main body of the External Device must be D-class grounded. Please refer to the manual of the External Device for more details.
- SG and FG are connected inside the Display. When connecting SG to the External Device, design the system not to form short-circuit loop.
- Connect the isolation unit, when communication is not stabilized under the influence of a noise etc..


Cable Diagram 1

| Display (Connection Port) | Cable *1 | | Remarks |
|------------------------------|----------|-------------------------------------|------------------------------|
| GP (COM1) IPC*2 | A | By Hitachi IES Co., Ltd. WVCB02H | Cable length: 15m or less |
| | B | Your own cable 1 | |
| | C | Your own cable 2 | |

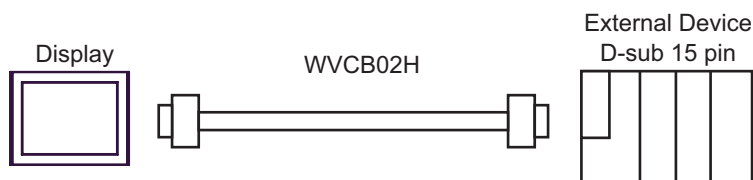
*1 You need to change the wiring depending on the speed.

| | H-200 H-250 H-252B | | H-252C | | H-300/H-302 H-700/H-702 H-2000/H-2002 | | H-4010 | |
|--|-------------------------------|--------|---|-------------|---|--------|---------------------------------|-----------|
| | Speed | Wiring | Speed | Wiring | Speed | Wiring | Speed | Wiring |
| Peripheral Port 1 or Serial Port 1 | 2400bps 4800bps 9600bps | B | 2400bps 4800bps 9600bps 19200bps | A B C | 4800bps | B | 4800bps 19200bps 38400bps | B A, C |
| | 19200bps | A C | | | 19200bps | A C | | |
| Peripheral Port 2 or Serial Port 2 | - | - | 4800bps | B | - | - | 4800bps | B |
| | | | 19200bps | A C | | | 19200bps | A, C |
| | | | 38400bps | A, B, C | | | 38400bps | A, B, C |

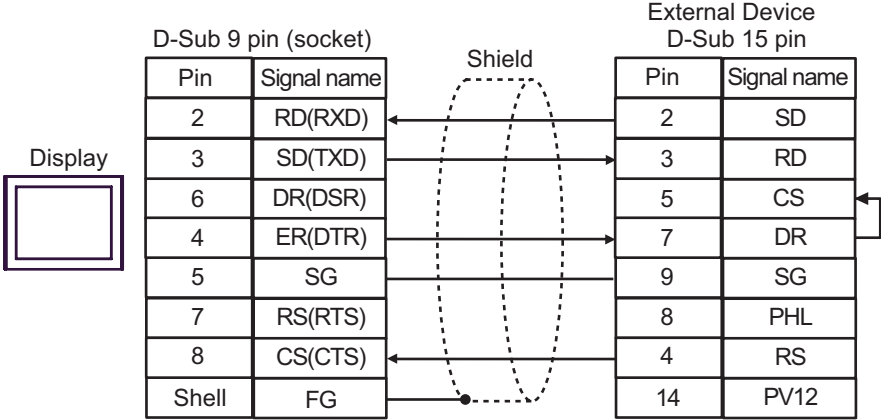
*2 Only the COM port which can communicate by RS-232C can be used.

 ■ COM Port of IPC (page 8)

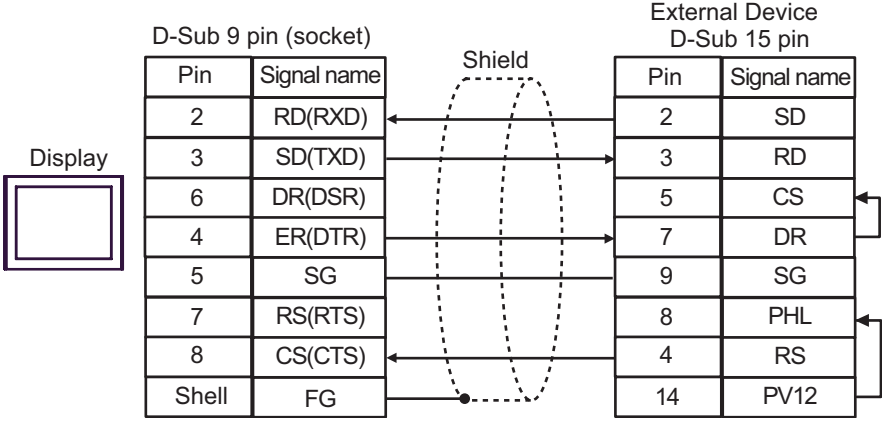
A. When using WVCB02H (2m) by Hitachi IES Co., Ltd.



B. When using your own cable 1




C. When using your own cable 2



Cable Diagram 2

| Display (Connection Port) | Cable | | Remarks |
|--|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) IPC* ² | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 250m or less |
| | B | Your own cable | |
| GP* ³ (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |

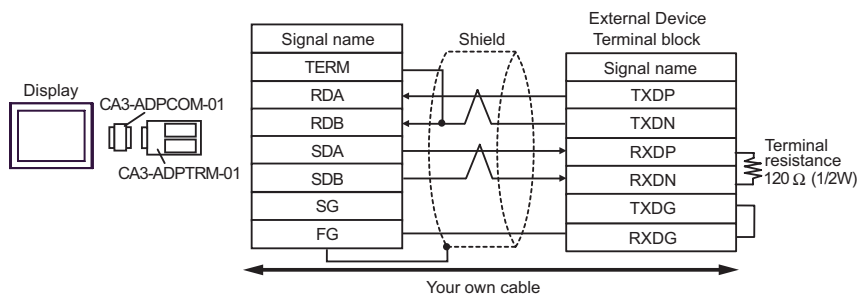
*1 All GP models except AGP-3302B

*2 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 ■ COM Port of IPC (page 8)

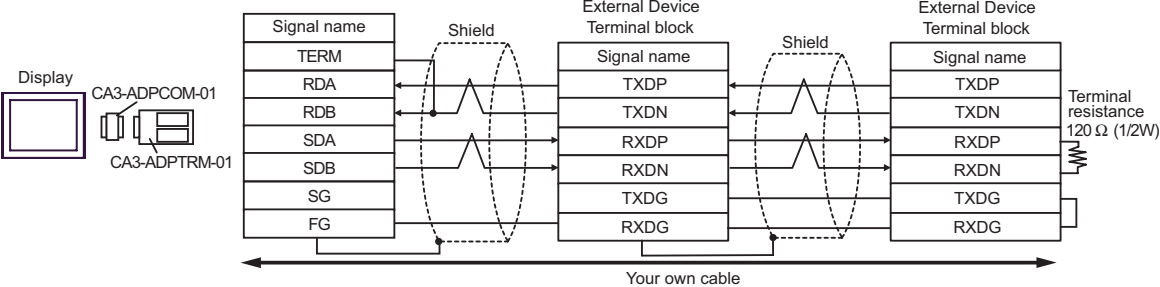
*3 All GP models except GP-3200 series and AGP-3302B

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

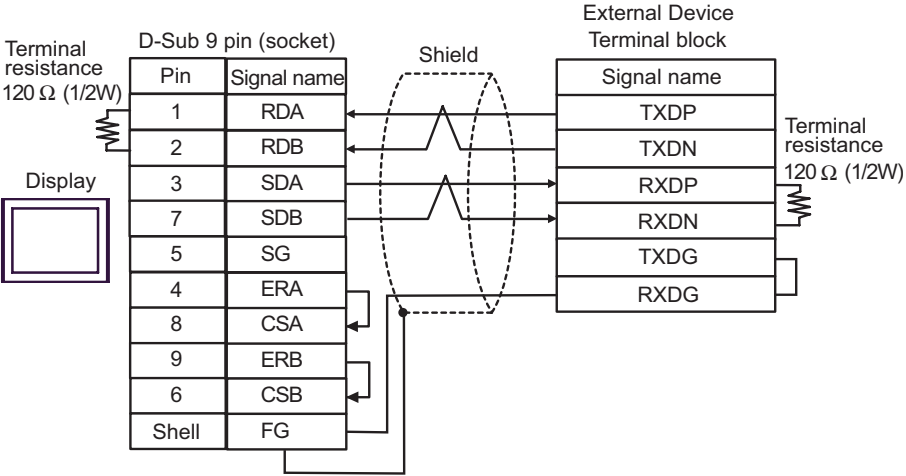


- 1:n Connection

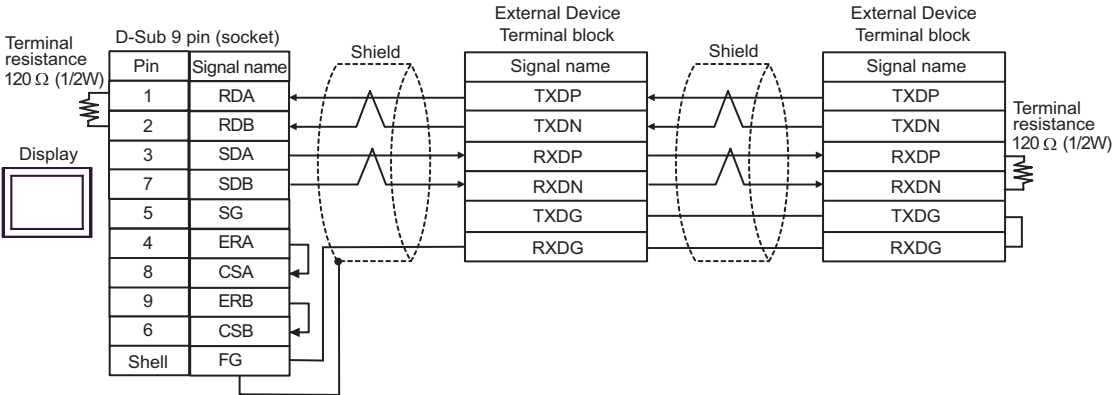


B. When your own cable is used

- 1:1 Connection

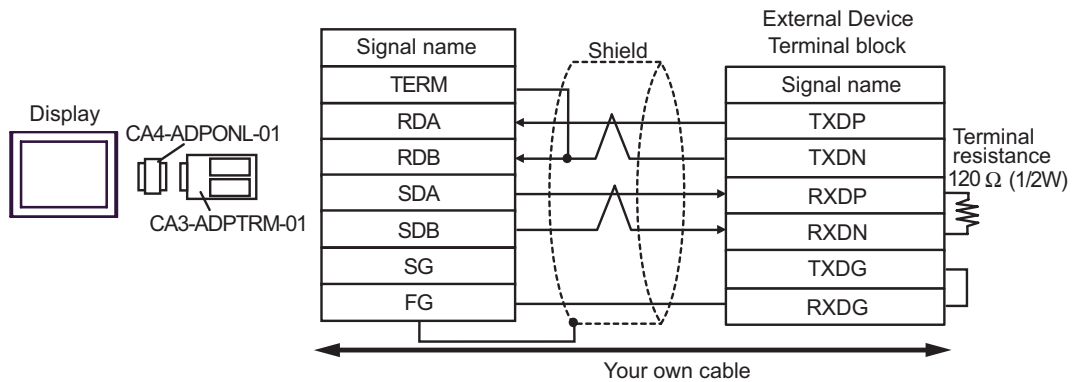


- 1:n Connection

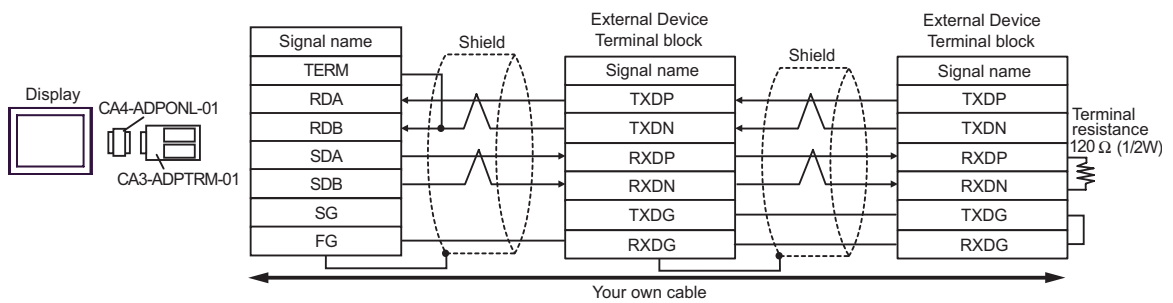


C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

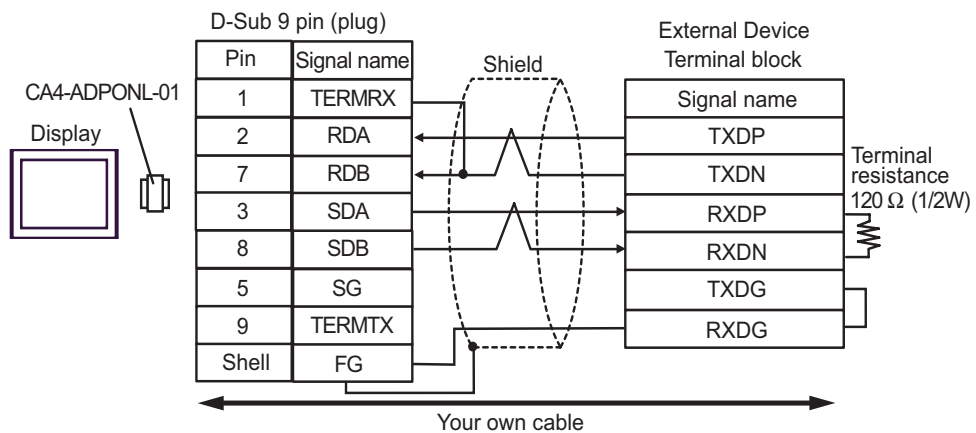


- 1:n Connection

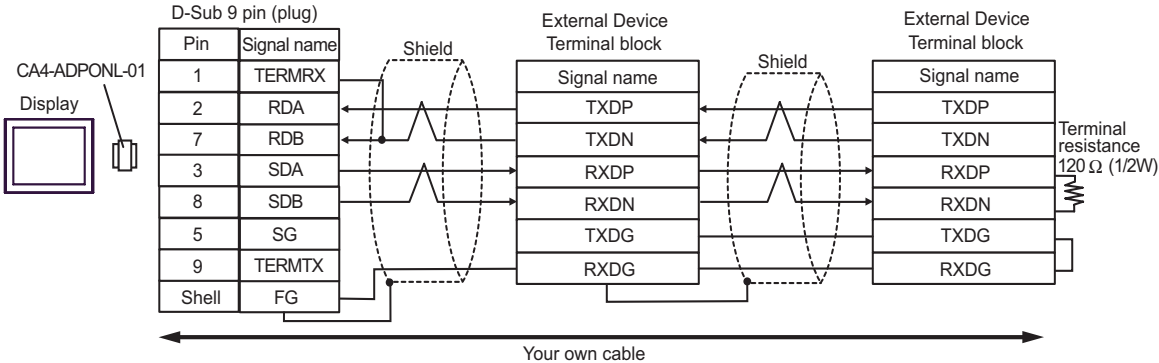


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection



- 1:n Connection




Cable Diagram 3

| Display (Connection Port) | Cable *1 | | Remarks |
|------------------------------|----------|--|------------------------------|
| GP (COM1) IPC*2 | A | By Hitachi IES Co., Ltd. EH-VCB02(2m) | Cable length: 15m or less |
| | B | By Hitachi IES Co., Ltd. WVCB02H(2m) + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m) | |
| | C | Your own cable 1 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m) | |
| | D | Your own cable 2 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m) | |

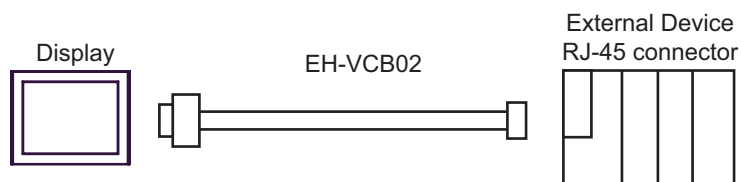
*1 You need to change the wiring depending on the speed.

| | EH-150 | |
|--|----------|--------|
| | Speed | Wiring |
| Peripheral Port 1 or Serial Port 1 | 4800bps | A |
| | 9600bps | B |
| | 19200bps | C |
| | 38400bps | D |
| Peripheral Port 2 or Serial Port 2 | 4800bps | A |
| | 9600bps | C |
| | 19200bps | B |
| | 38400bps | D |

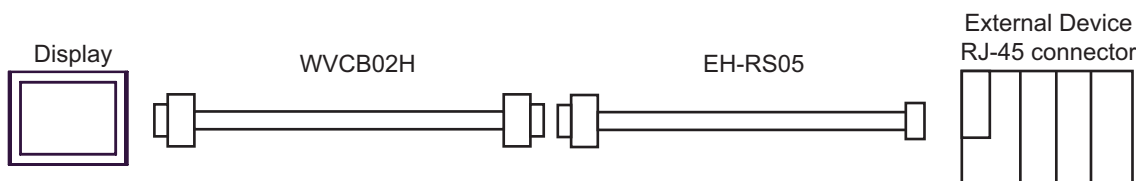
*2 Only the COM port which can communicate by RS-232C can be used.

 ■ COM Port of IPC (page 8)

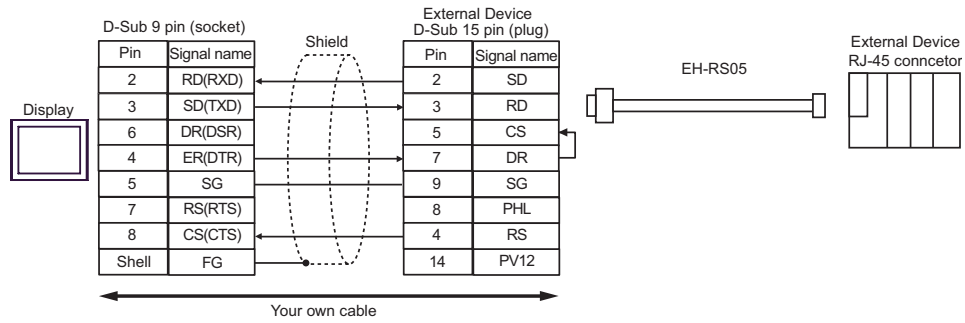
A. When using the cable (EH-VCB02) by Hitachi IES Co., Ltd.



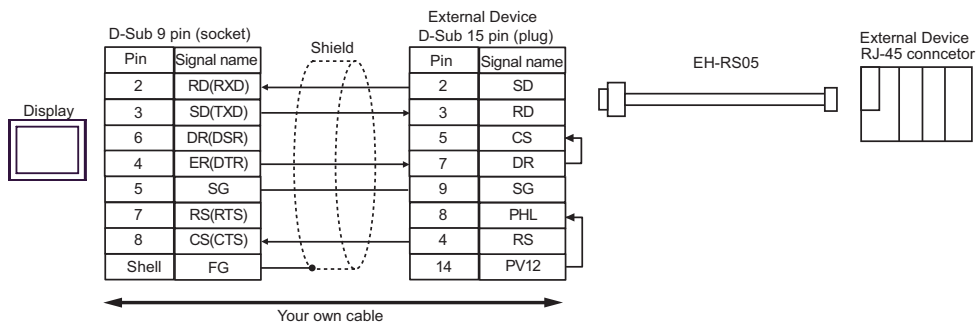
B. When using the cable (WVCB02H) by Hitachi IES Co., Ltd. and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.



C. When using your own cable 1 and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.




D. When using your own cable 2 and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.



Cable Diagram 4

| Display (Connection Port) | Cable | | Remarks |
|--|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) IPC* ² | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | Cable length: 500m or less |
| | B | Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |
| GP* ³ (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |

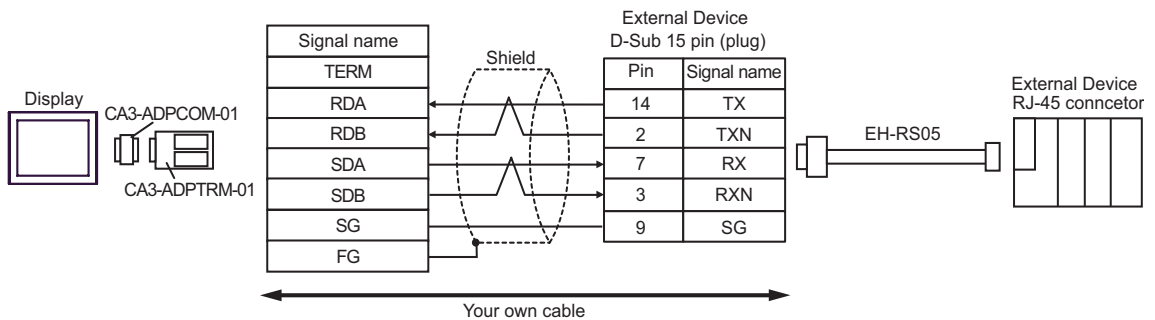
*1 All GP models except AGP-3302B

*2 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 ■ COM Port of IPC (page 8)

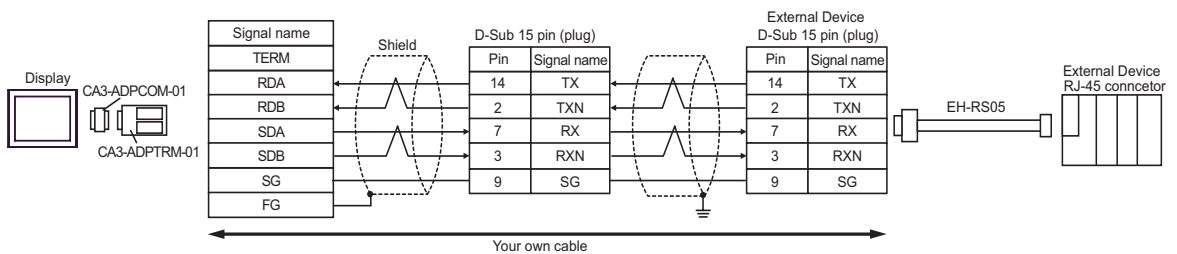
*3 All GP models except GP-3200 series and AGP-3302B

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face, your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection



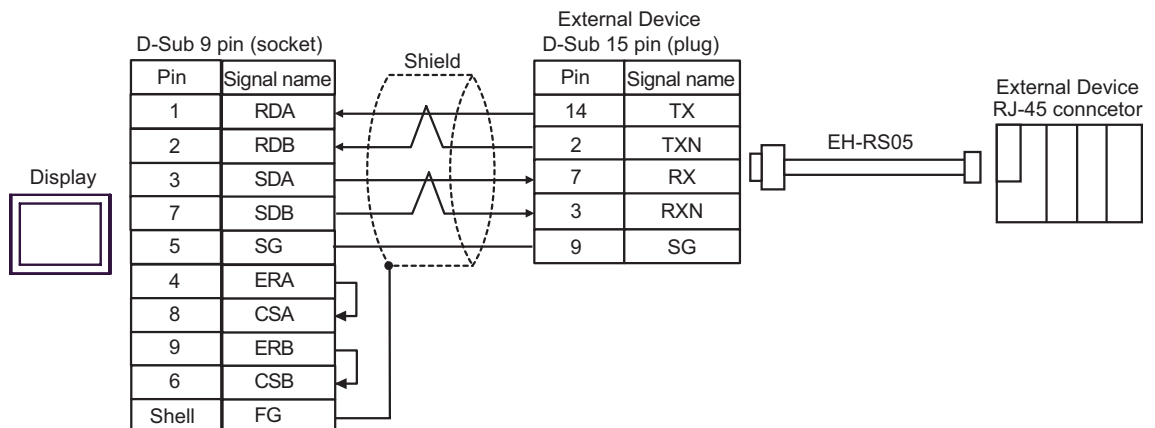
- 1:n Connection



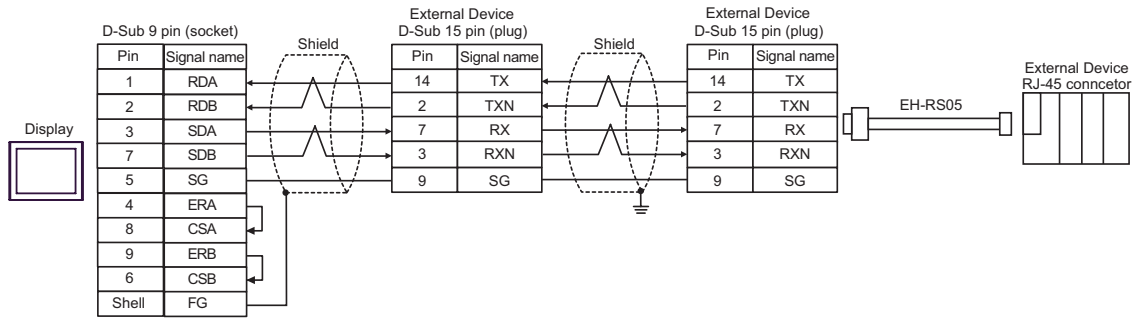
*For more information about the termination resistance, contact Hitachi IES Co., Ltd.

B. When using your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection



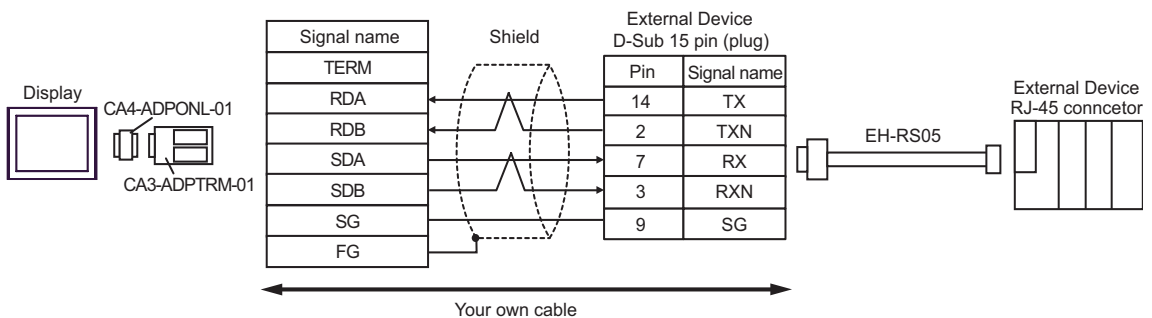
- 1:n Connection



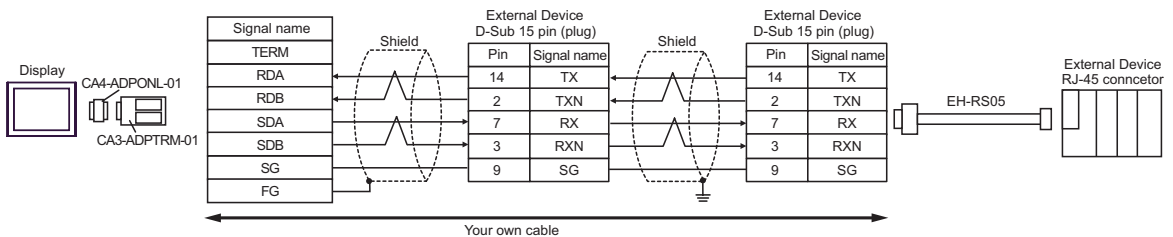
*For more information about the termination resistance, contact Hitachi IES Co., Ltd.

C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face, your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection



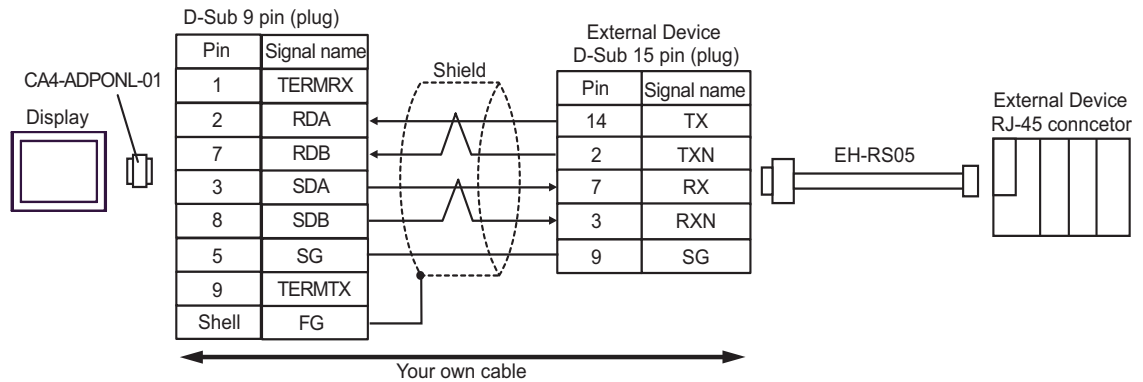
- 1:n Connection



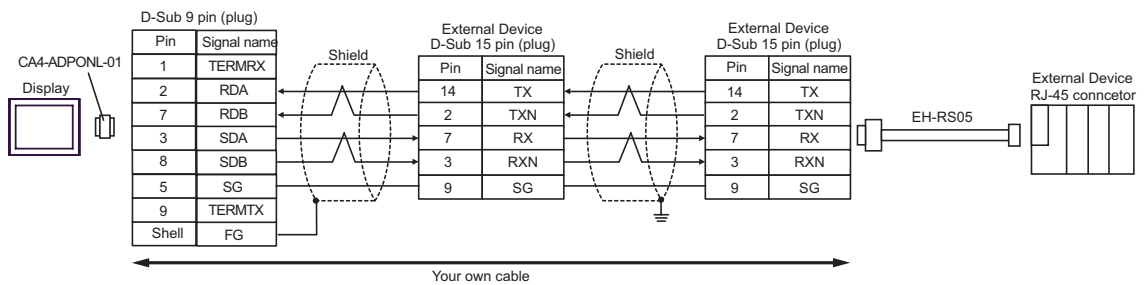
*For more information about the termination resistance, contact Hitachi IES Co., Ltd.

D. When using the online adapter (CA4-ADPONL-01), your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection



- 1:n Connection



*For more information about the termination resistance, contact Hitachi IES Co., Ltd.


Cable Diagram 5

| Display (Connection Port) | Cable | | Remarks |
|---|-------|---|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | Cable length: 500m or less |
| | B | Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |
| GP* ² (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |
| IPC* ³ | E | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |
| | F | Your own cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05 | |

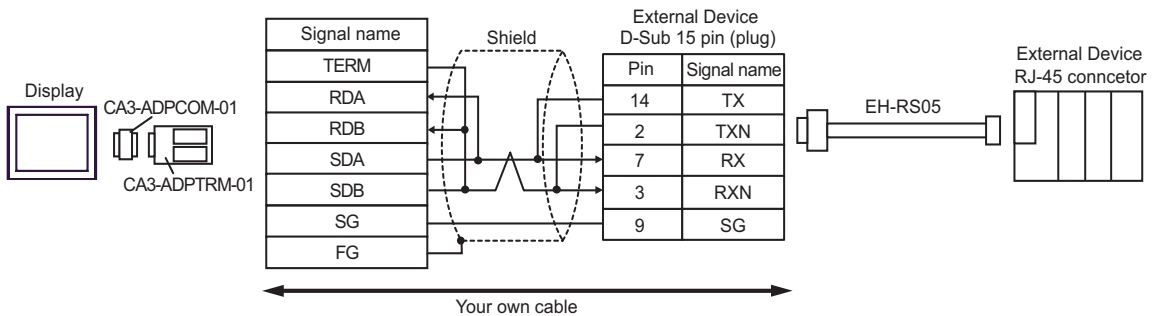
*1 All GP models except AGP-3302B

*2 All GP models except GP-3200 series and AGP-3302B

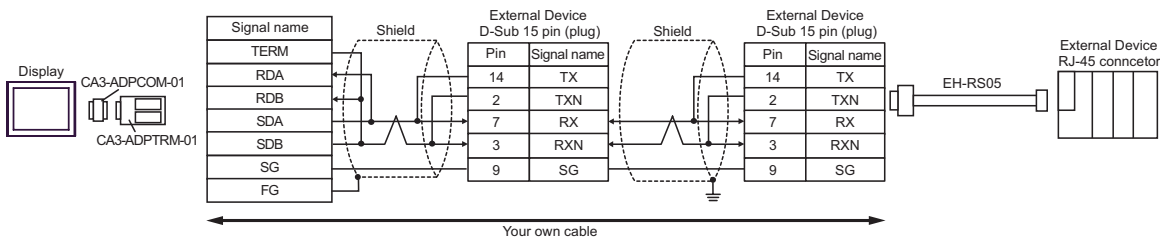
*3 Only the COM port which can communicate by RS-422/485 (2 wire) can be used.

 ■ COM Port of IPC (page 8)

- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face, your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.
- 1:1 Connection

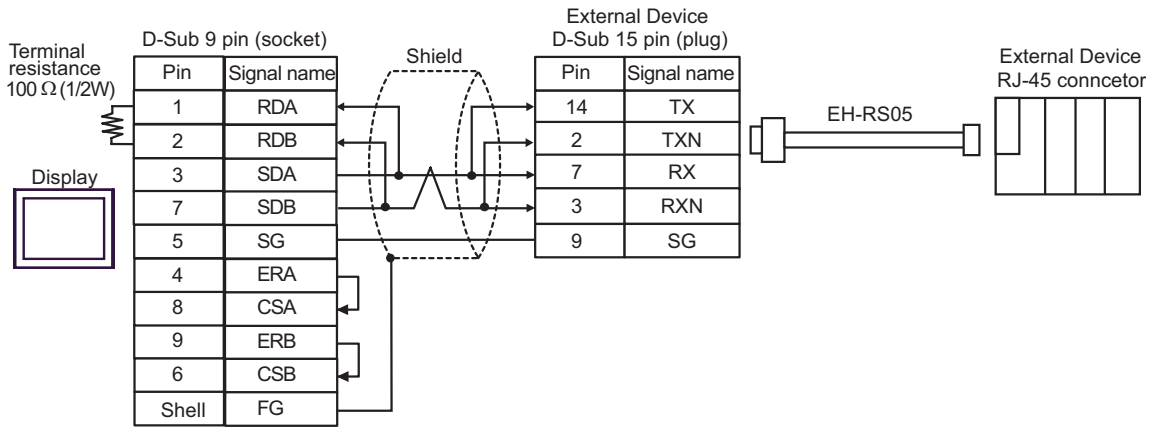


- 1:n Connection

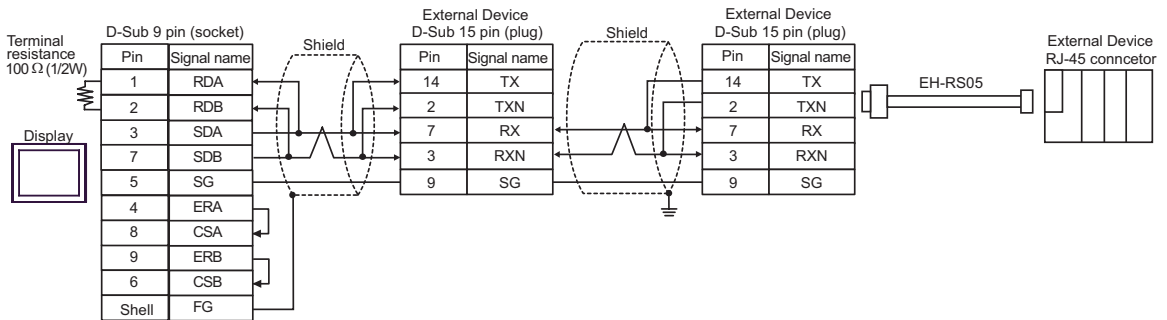


B. When using your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection

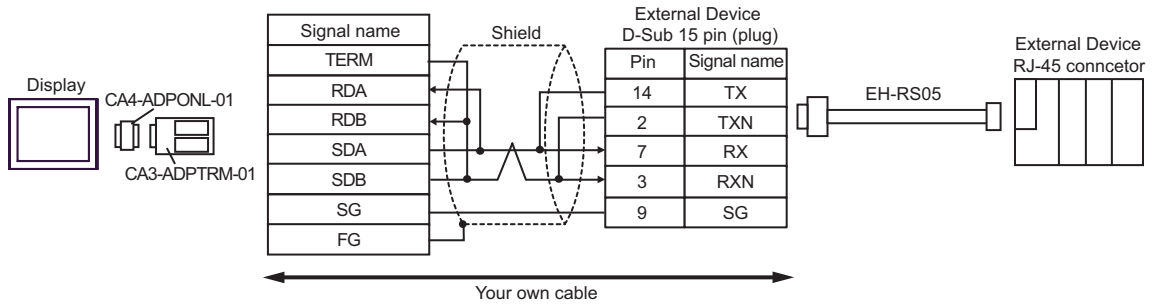


- 1:n Connection

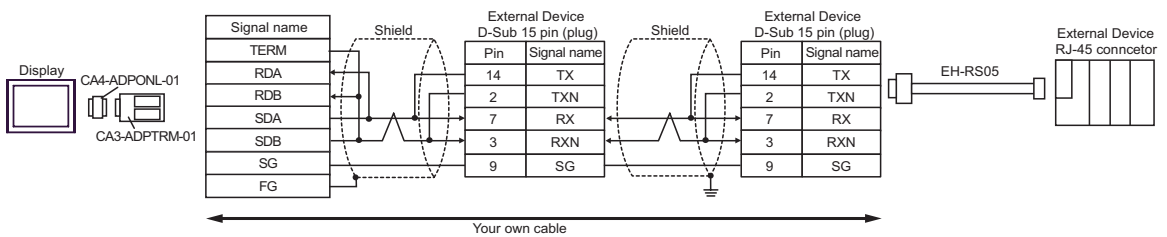


- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face, your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection

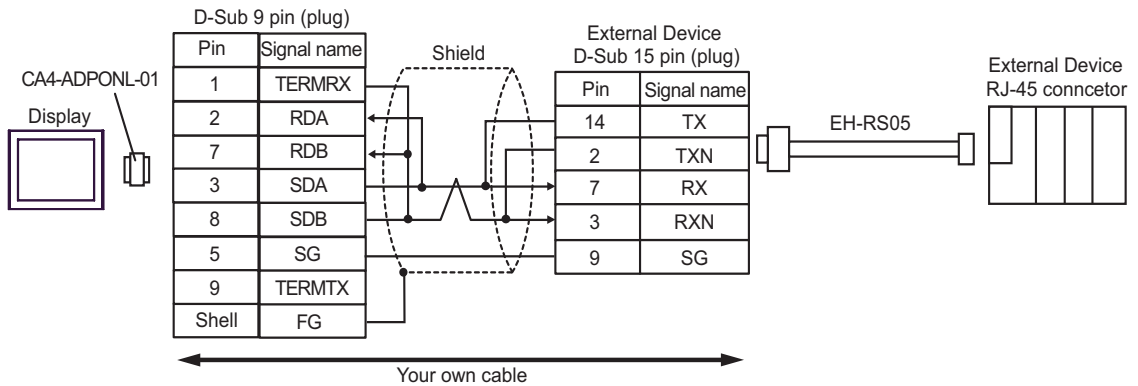


- 1:n Connection

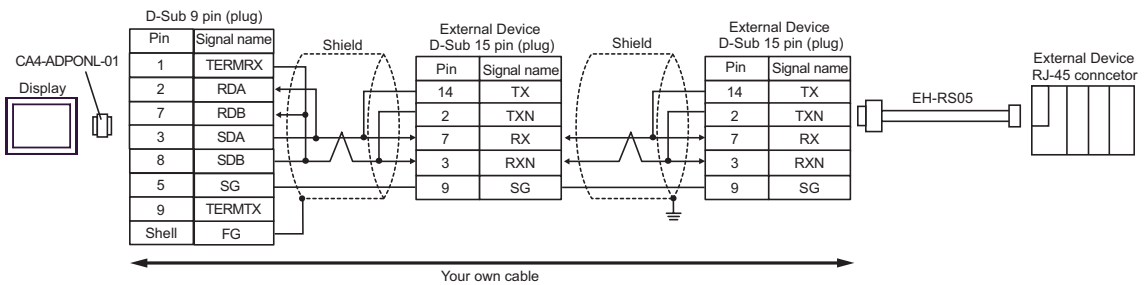


D. When using the online adapter (CA4-ADPONL-01), your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection

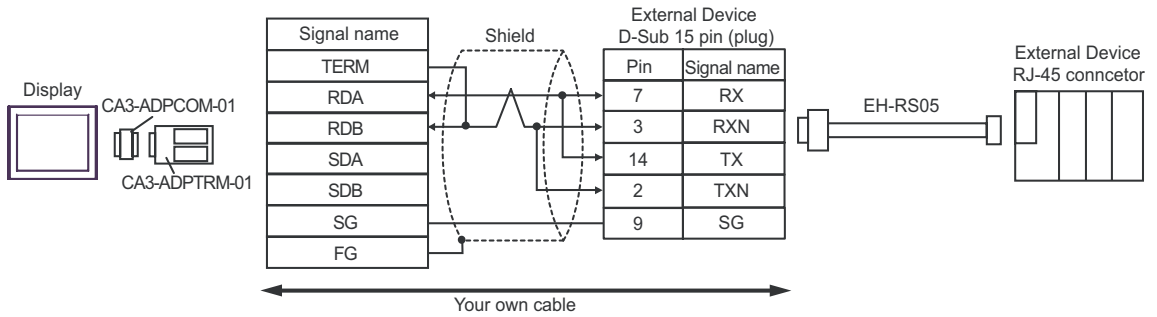


- 1:n Connection

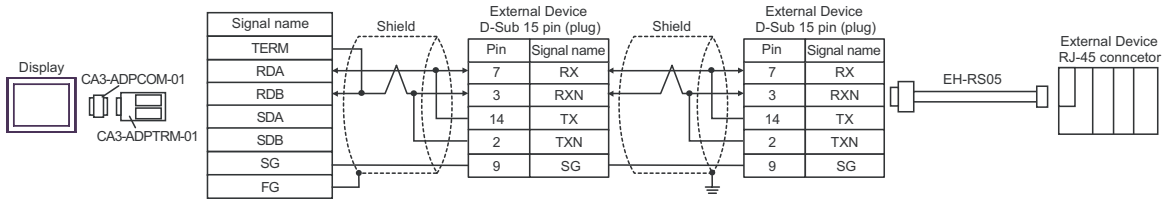


E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face, your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection

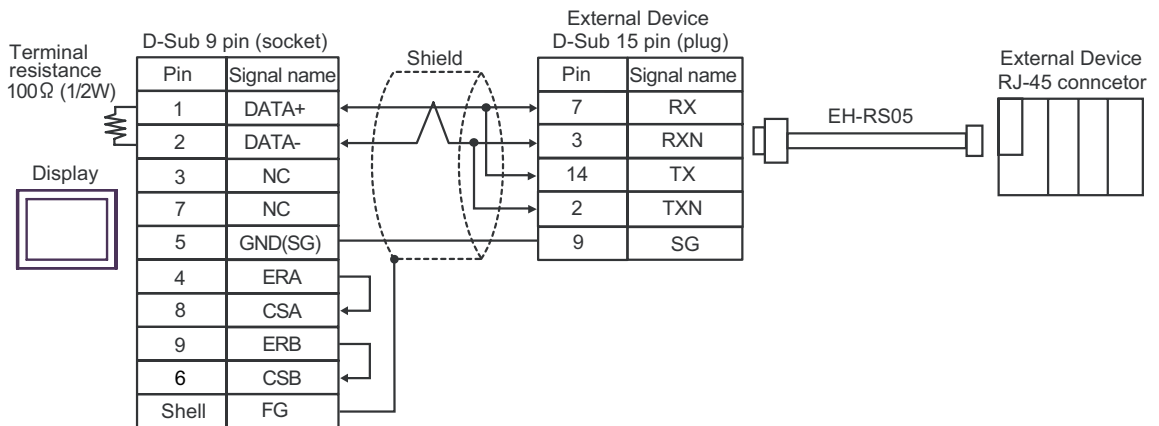


- 1:n Connection

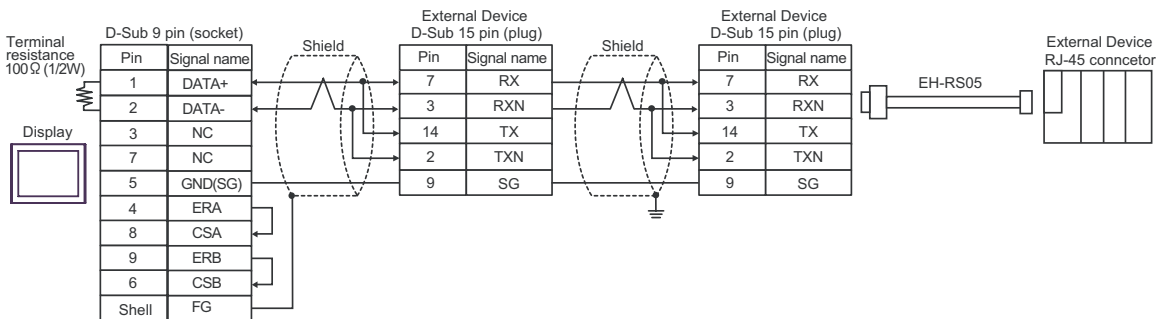


F. When using your own cable and the conversion cable (EH-RS05) by Hitachi IES Co., Ltd.

- 1:1 Connection




- 1:n Connection



Cable Diagram 6

| Display (Connection Port) | Cable | | Remarks |
|--|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) IPC* ² | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 500m or less |
| | B | Your own cable | |
| GP* ³ (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |

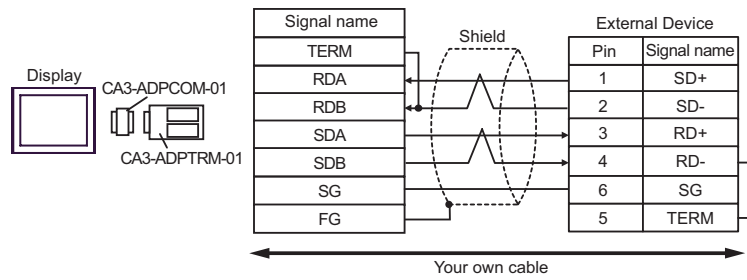
*1 All GP models except AGP-3302B

*2 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 ■ COM Port of IPC (page 8)

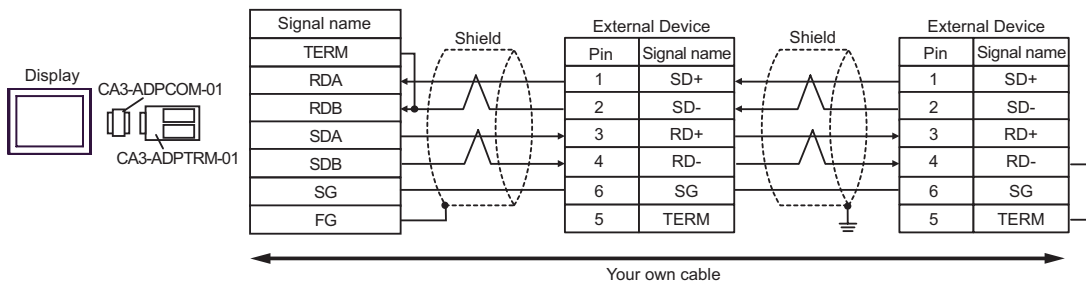
*3 All GP models except GP-3200 series and AGP-3302B

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

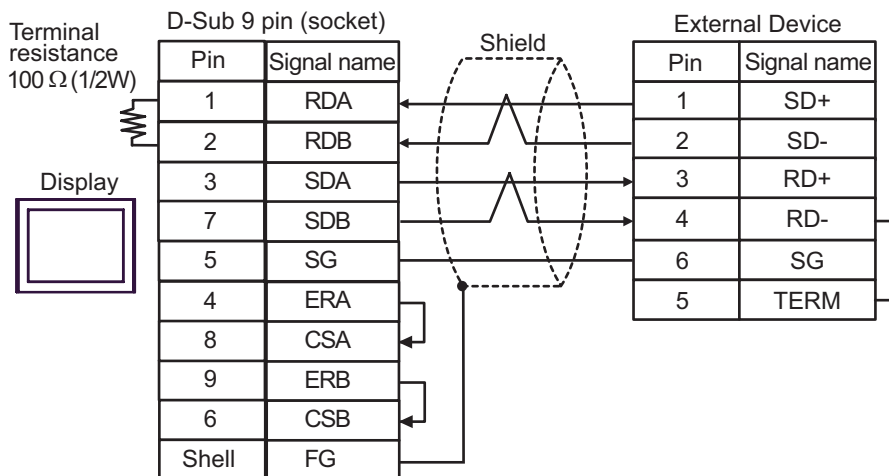


- 1:n Connection

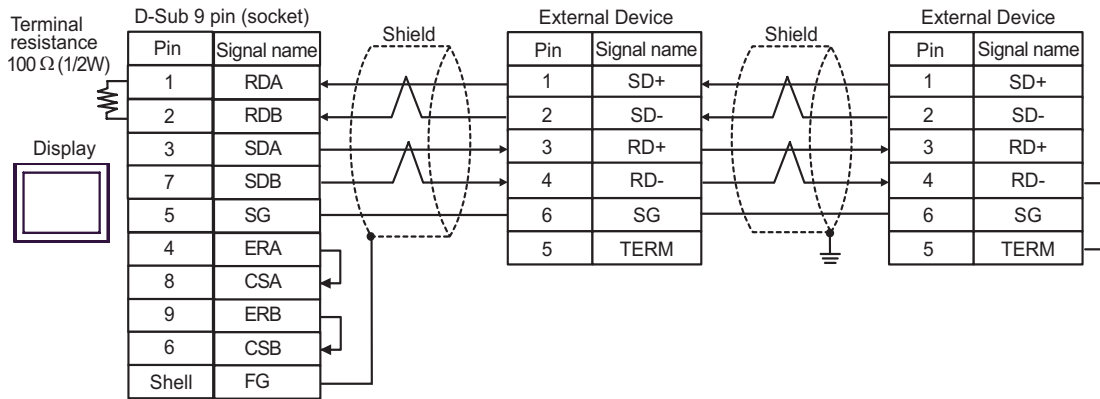


B. When your own cable is used

- 1:1 Connection

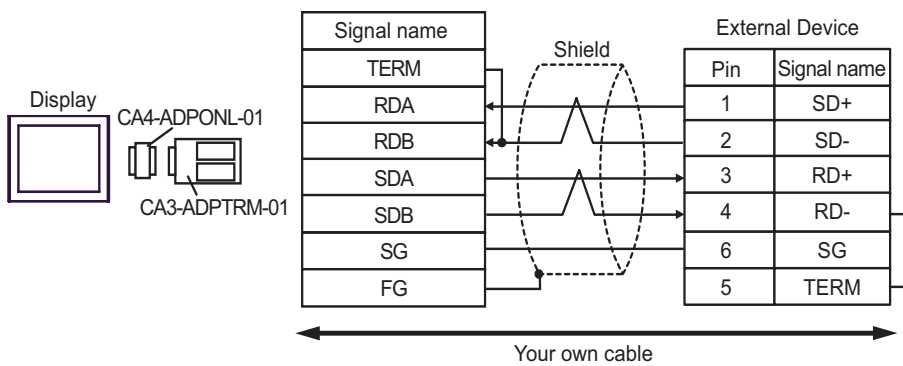


- 1:n Connection

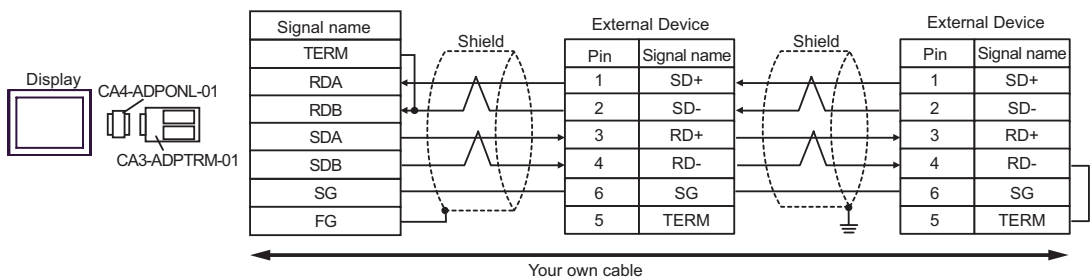


C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

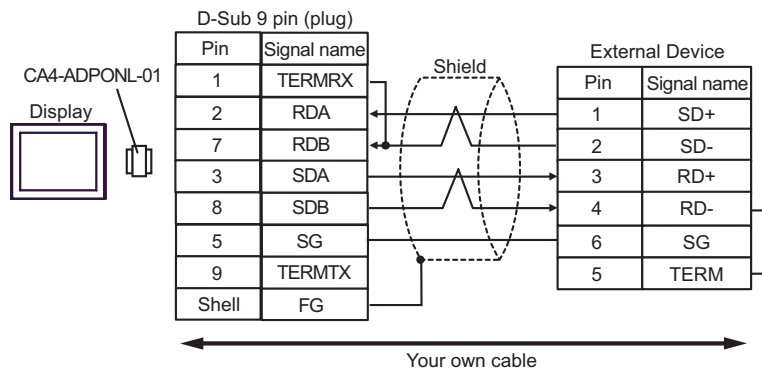


- 1:n Connection

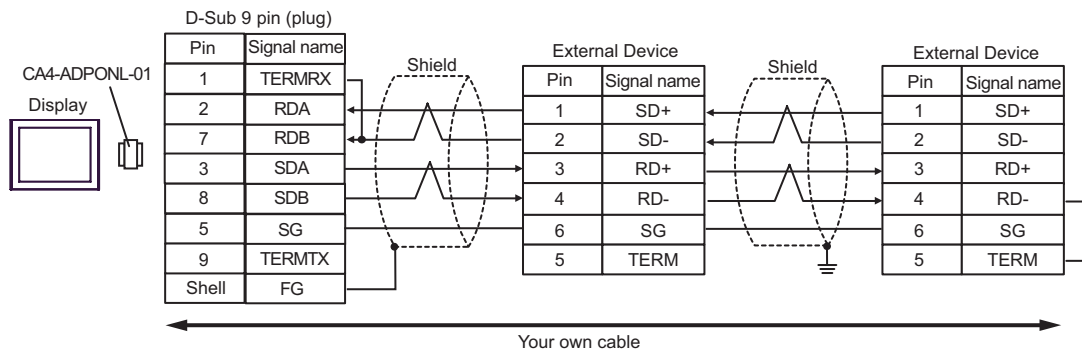


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection



- 1:n Connection




Cable Diagram 7

| Display (Connection Port) | Cable | | Remarks |
|---|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 500m or less |
| | B | Your own cable | |
| GP* ² (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |
| IPC* ³ | E | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | F | Your own cable | |

*1 All GP models except AGP-3302B

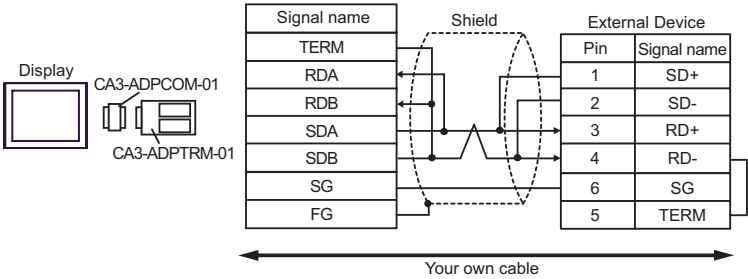
*2 All GP models except GP-3200 series and AGP-3302B

*3 Only the COM port which can communicate by RS-422/485 (2 wire) can be used.

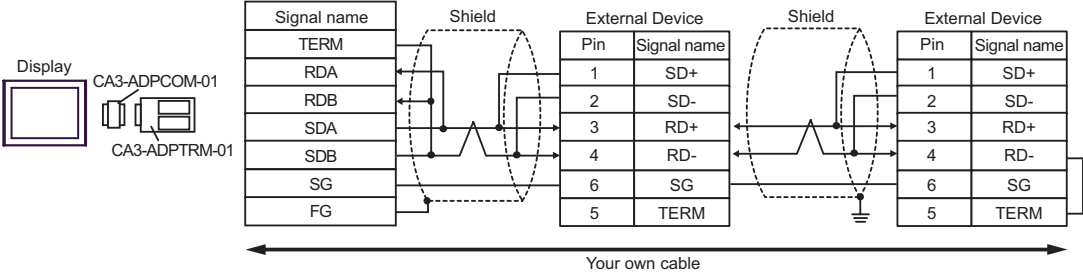
 ■ COM Port of IPC (page 8)

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

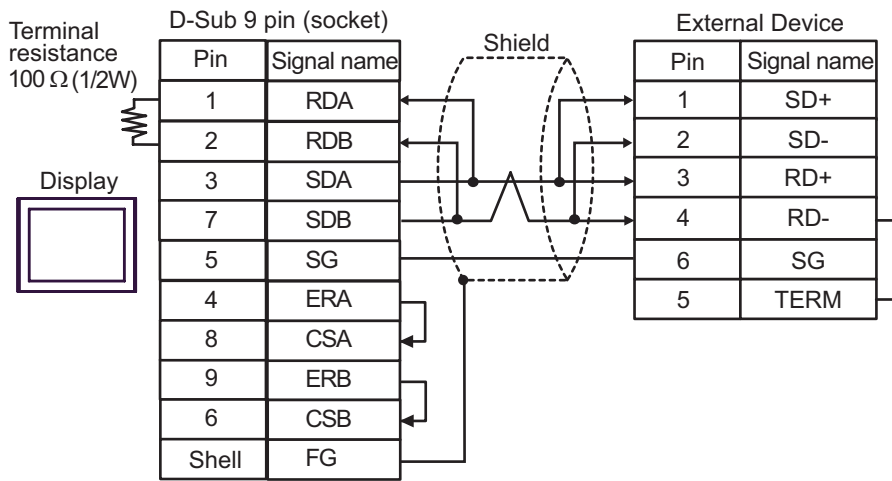


- 1:n Connection

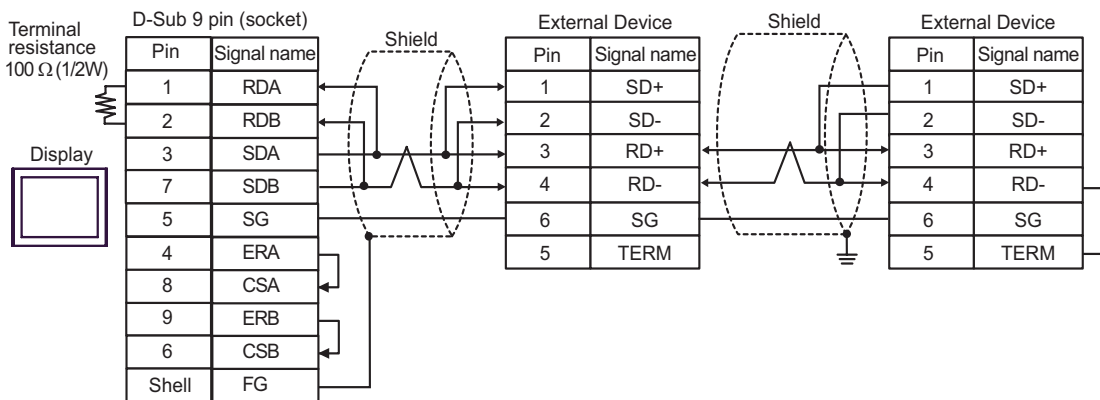


B. When your own cable is used

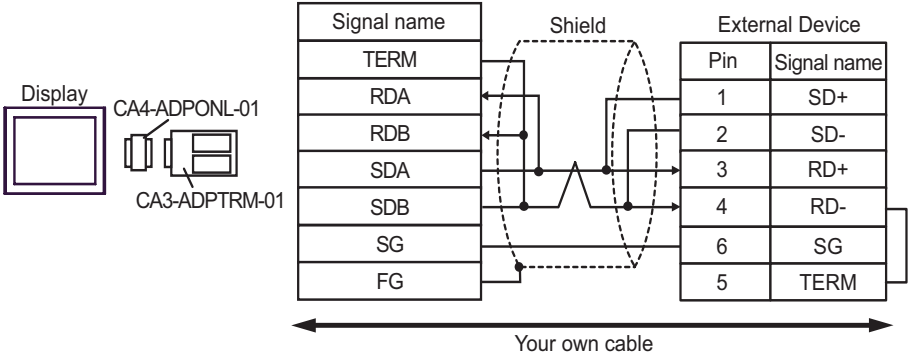
- 1:1 Connection



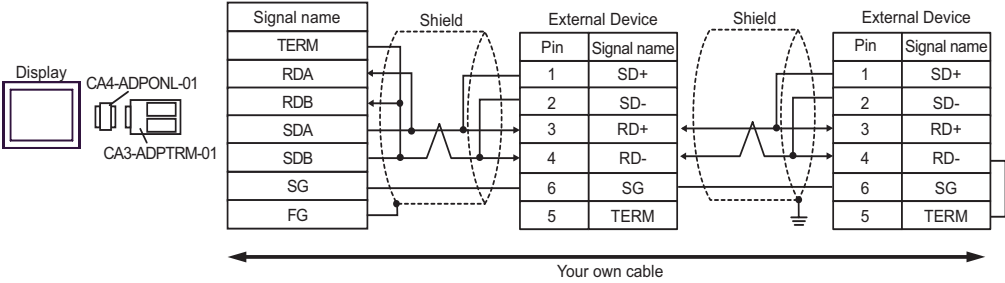
- 1:n Connection



- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
 - 1:1 Connection

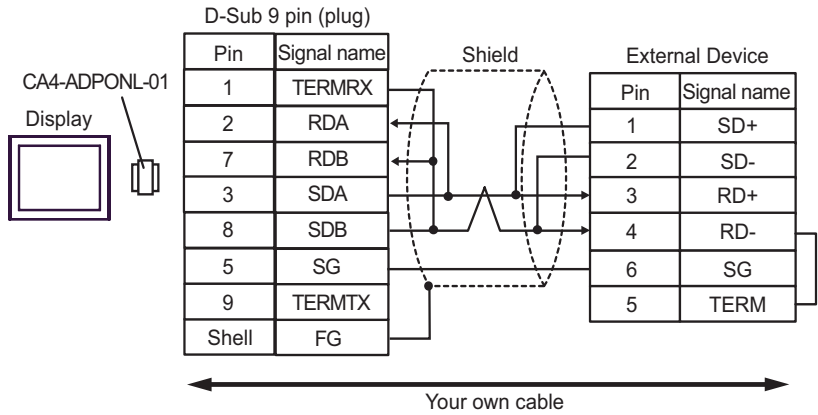


- 1:n Connection

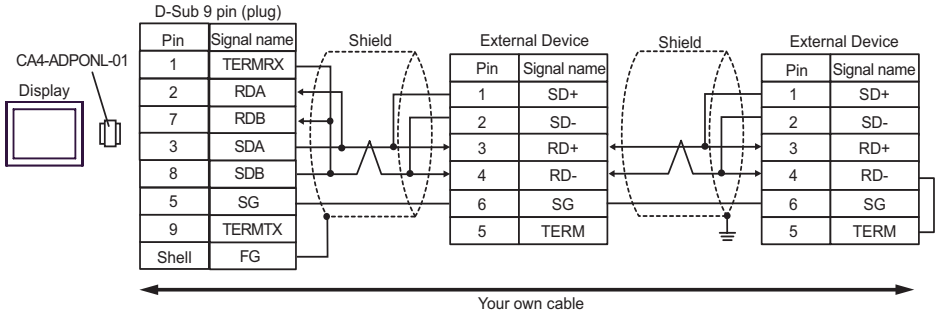


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection

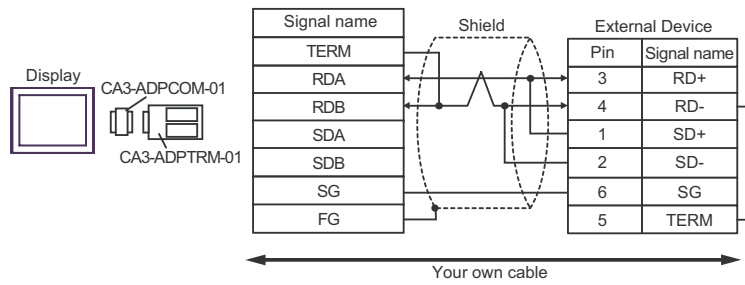


- 1:n Connection

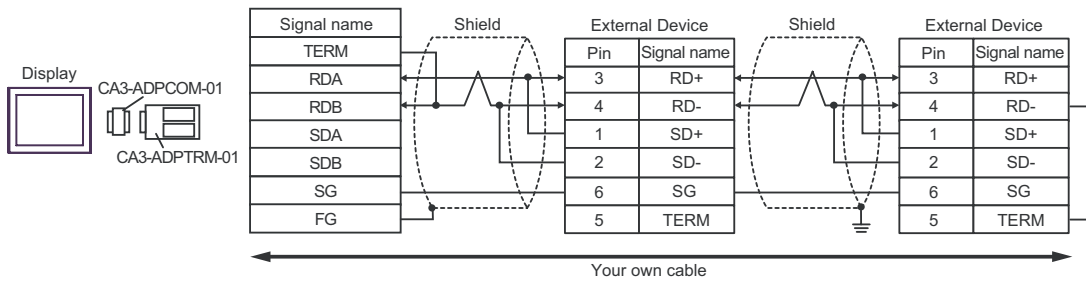


E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

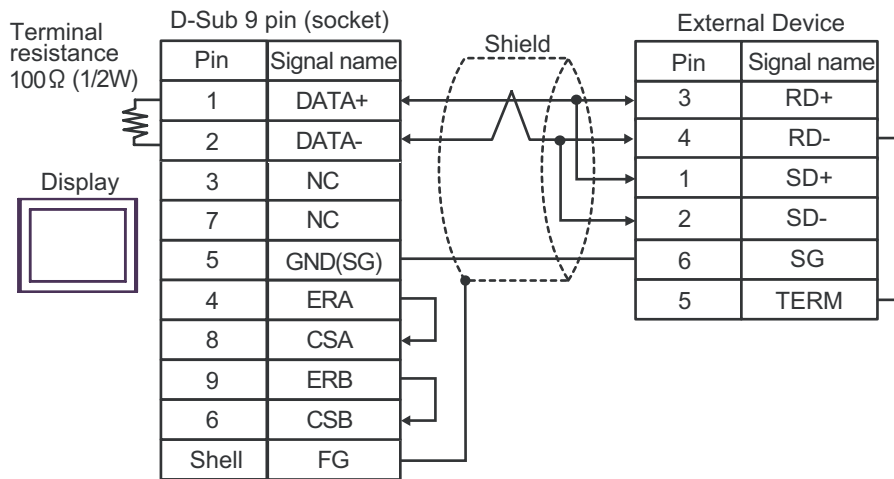


- 1:n Connection

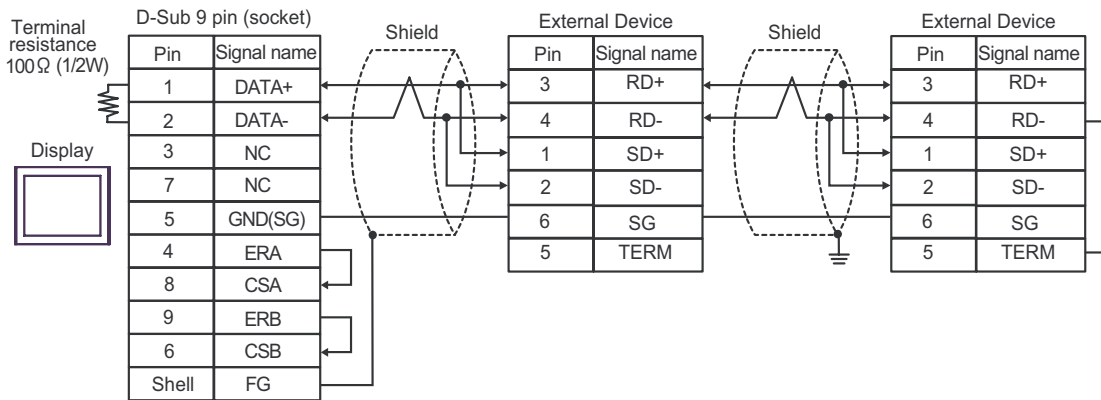


F. When your own cable is used

- 1:1 Connection




- 1:n Connection



Cable Diagram 8

| Display (Connection Port) | Cable | | Remarks |
|--|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) IPC* ² | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 250m or less |
| | B | Your own cable | |
| GP* ³ (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |

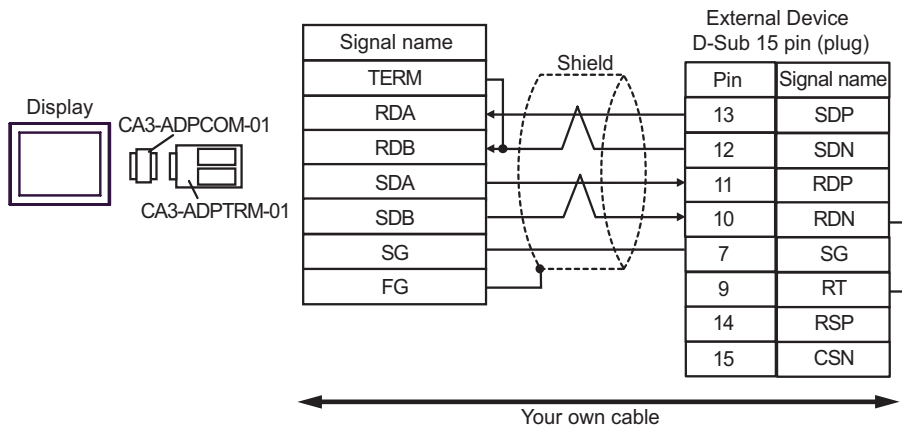
*1 All GP models except AGP-3302B

*2 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 ■ COM Port of IPC (page 8)

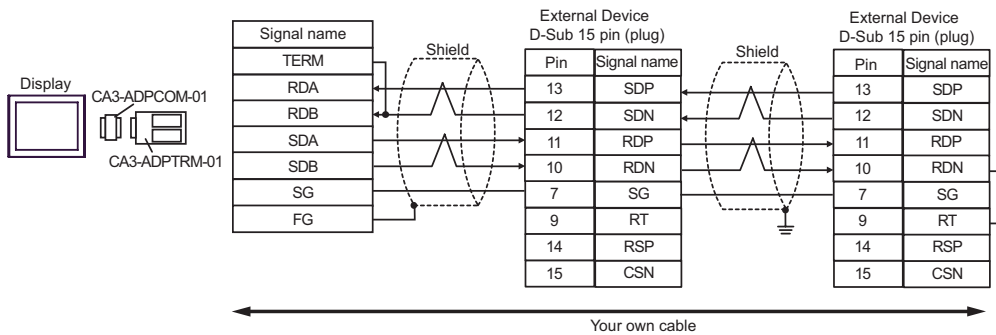
*3 All GP models except GP-3200 series and AGP-3302B

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

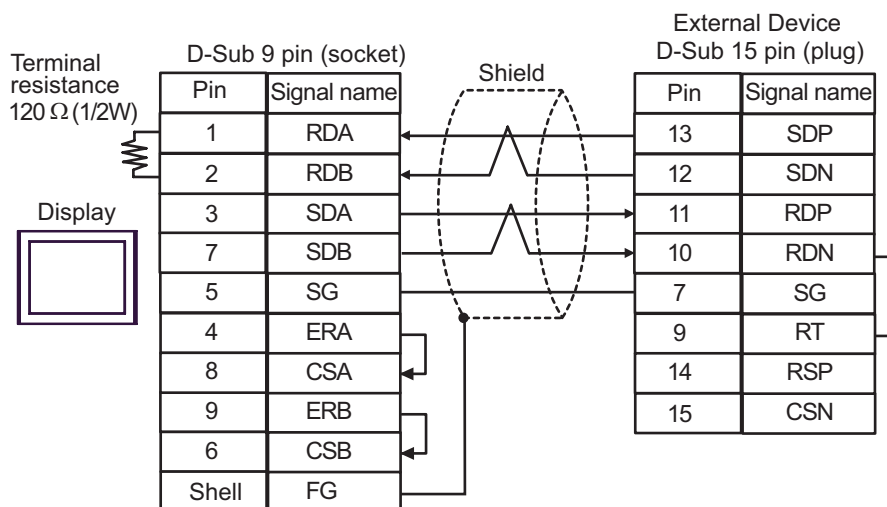


- 1:n Connection

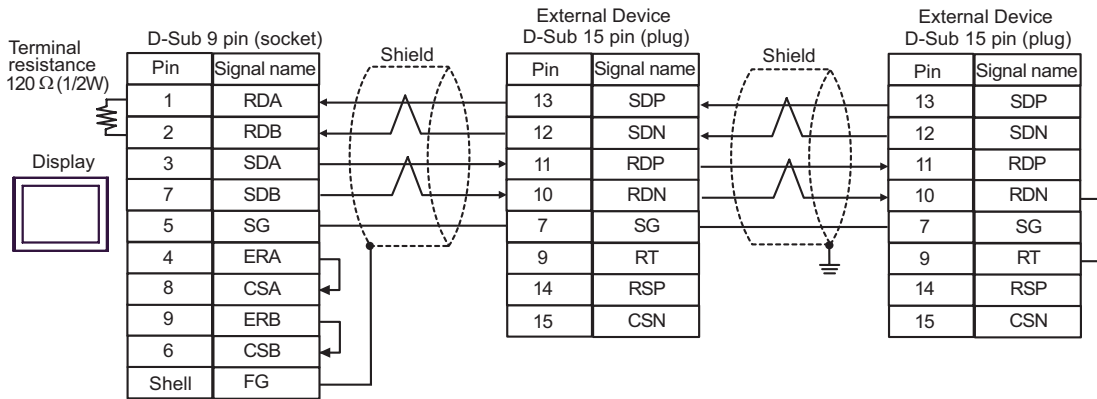


B. When your own cable is used

- 1:1 Connection

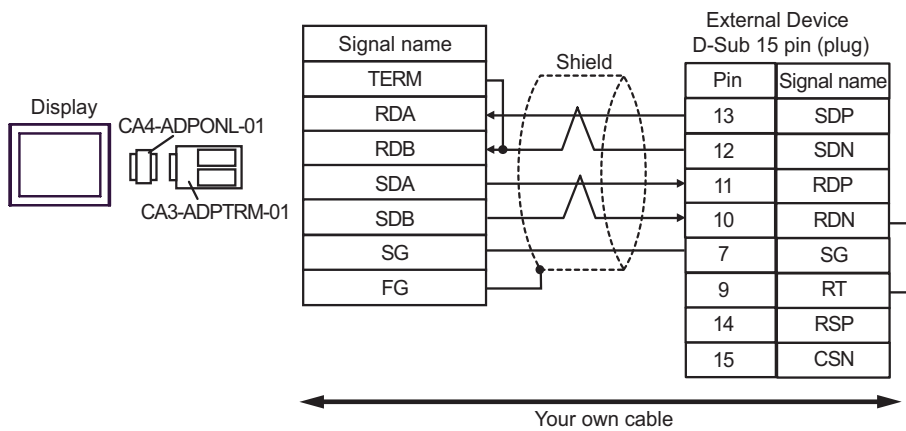


- 1:n Connection

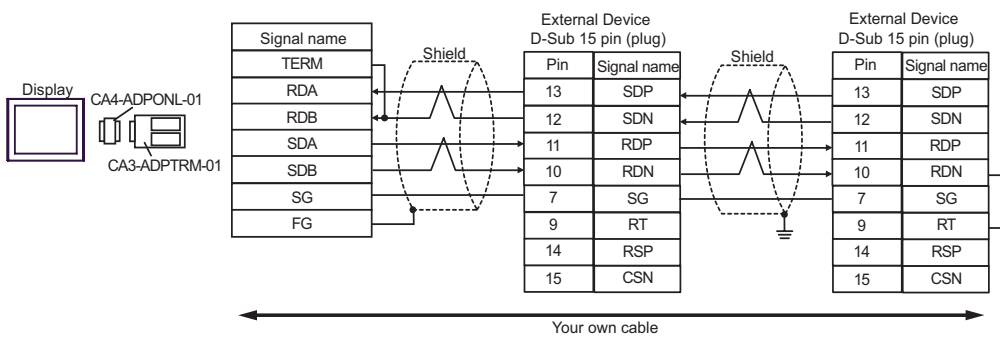


C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

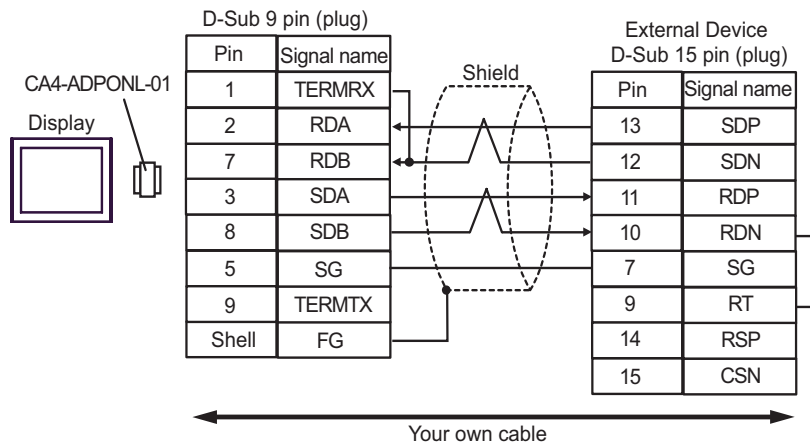


- 1:n Connection

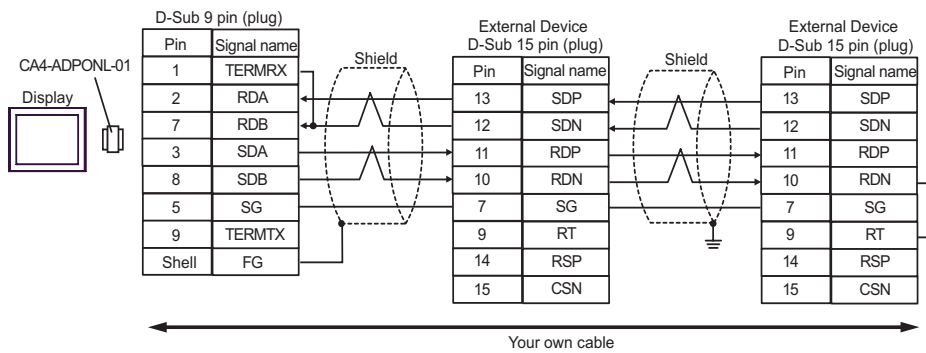


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection



- 1:n Connection




Cable Diagram 9

| Display (Connection Port) | Cable | | Remarks |
|---|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 250m or less |
| | B | Your own cable | |
| GP* ² (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |
| IPC* ³ | E | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | F | Your own cable | |

*1 All GP models except AGP-3302B

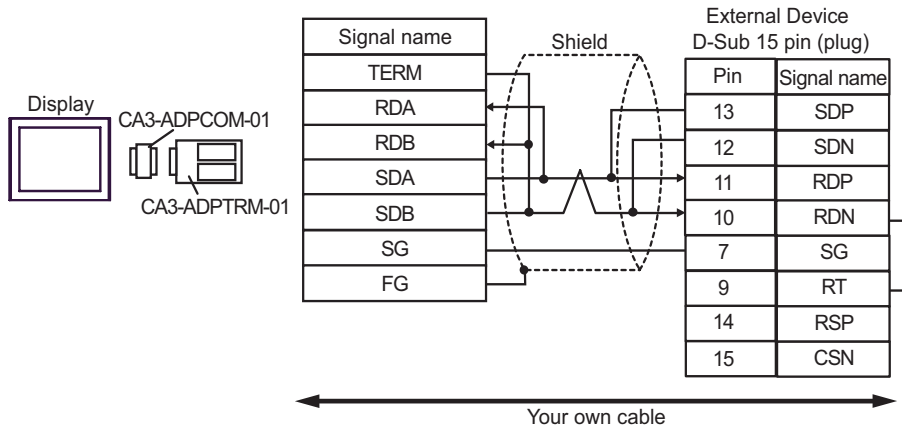
*2 All GP models except GP-3200 series and AGP-3302B

*3 Only the COM port which can communicate by RS-422/485 (2 wire) can be used.

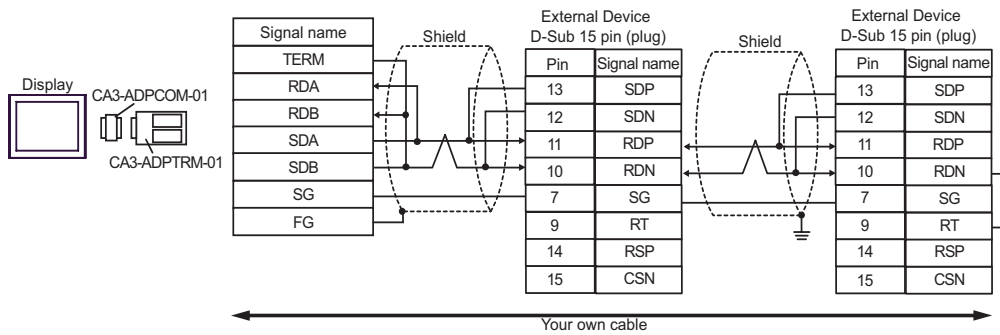
 ■ COM Port of IPC (page 8)

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

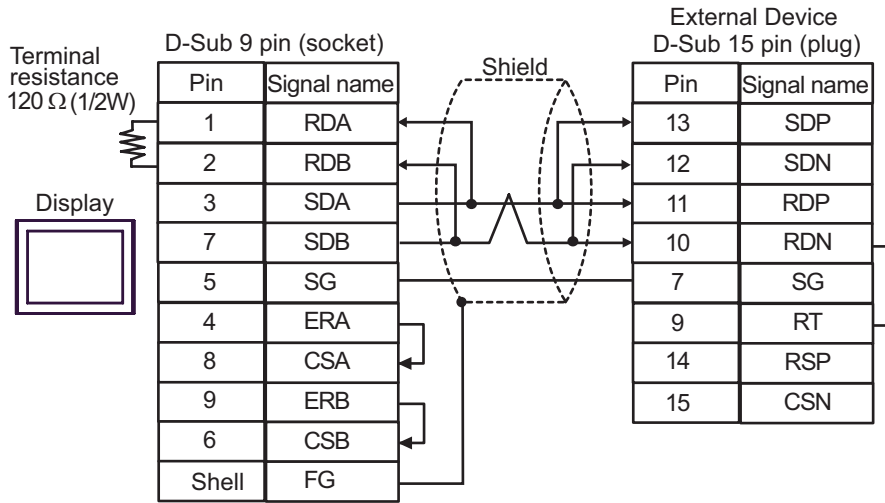


- 1:n Connection

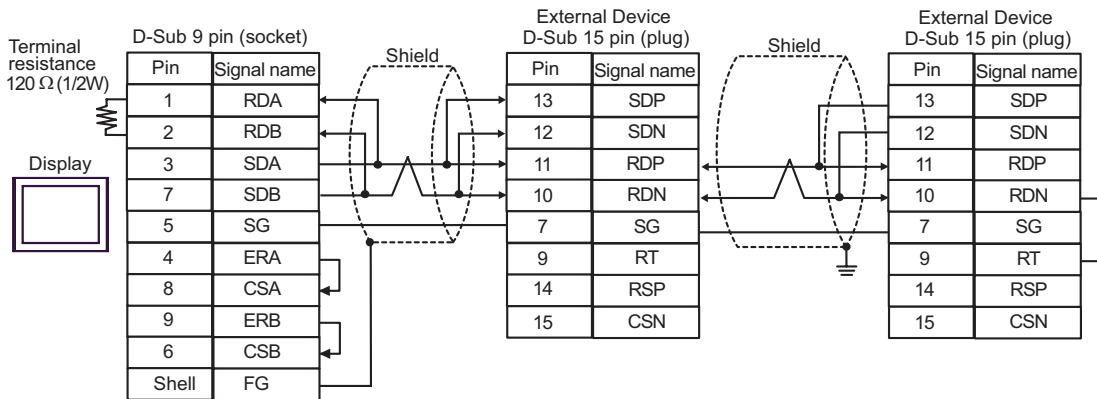


B. When your own cable is used

- 1:1 Connection

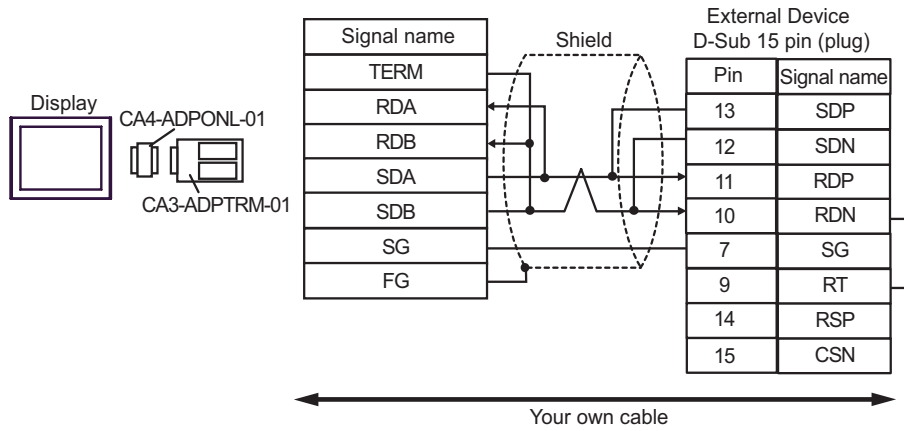


- 1:n Connection

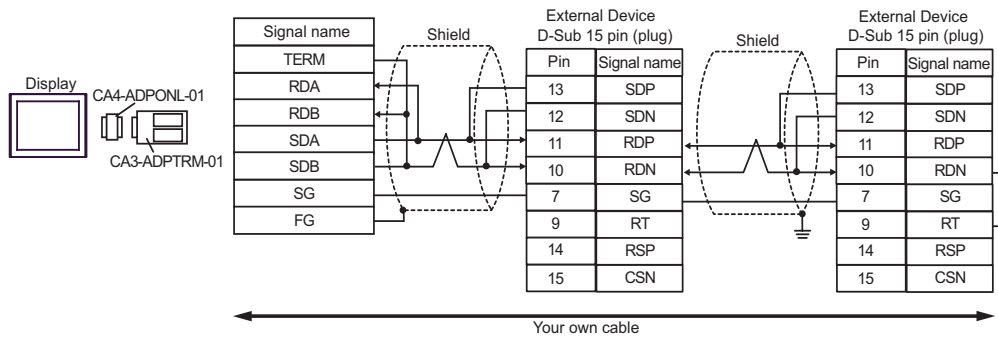


C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

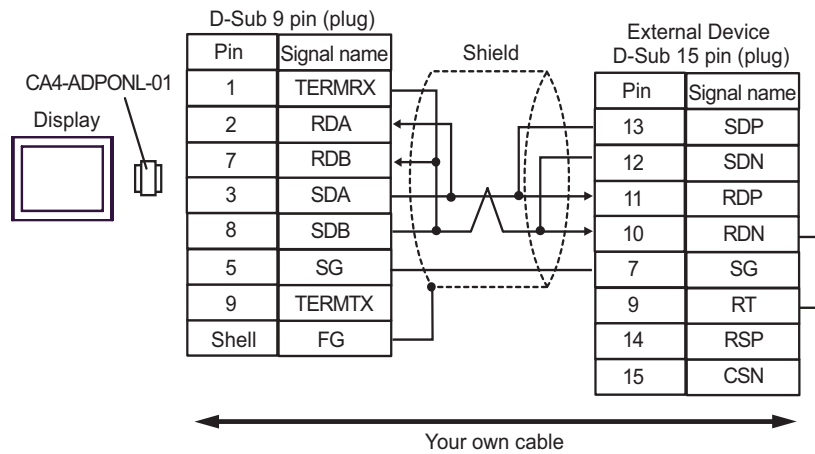


- 1:n Connection

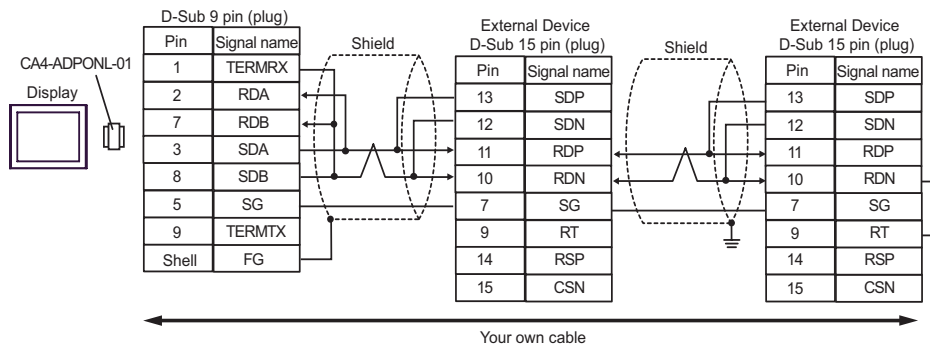


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection

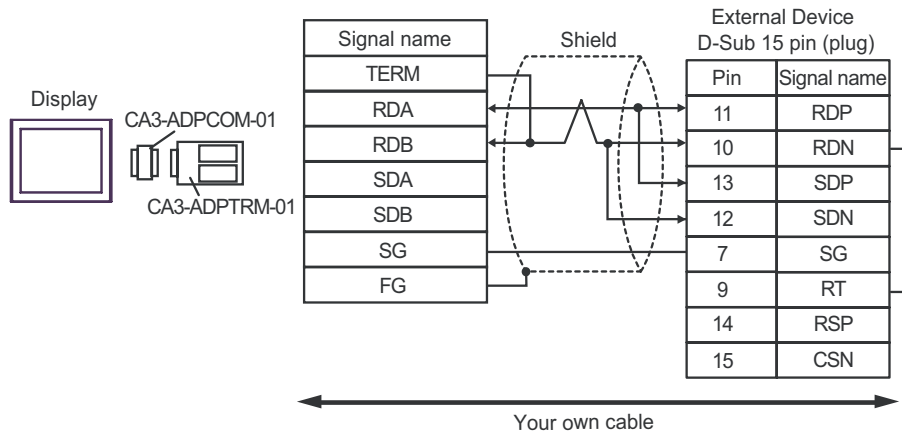


- 1:n Connection

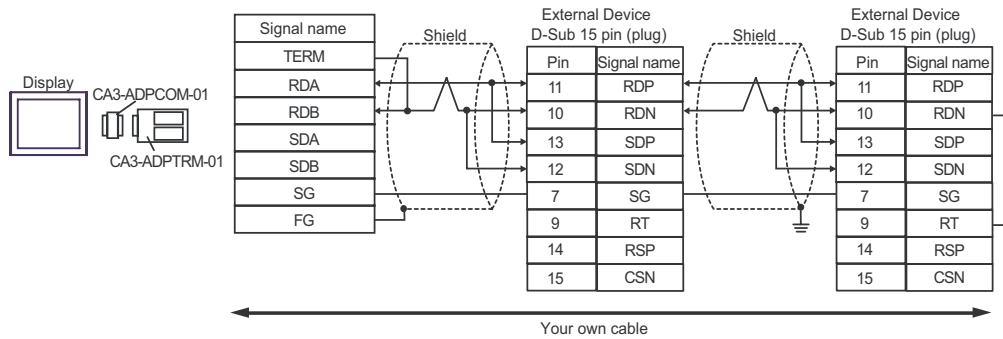


E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

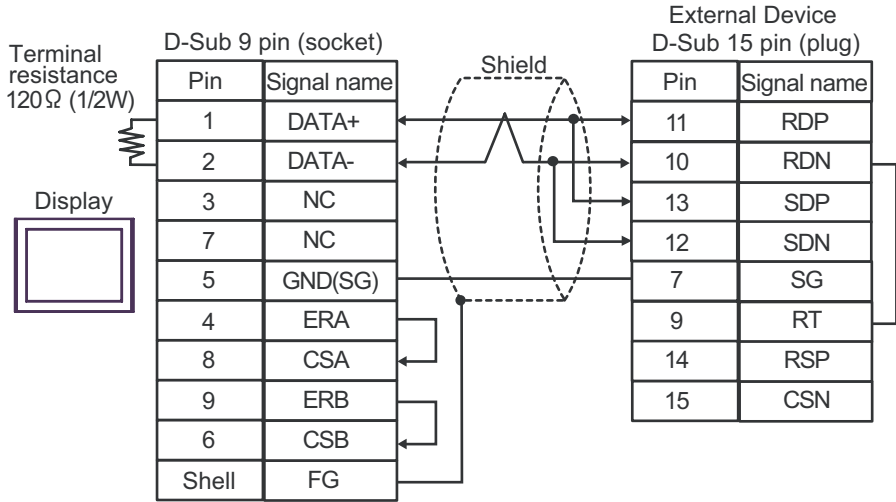


- 1:n Connection

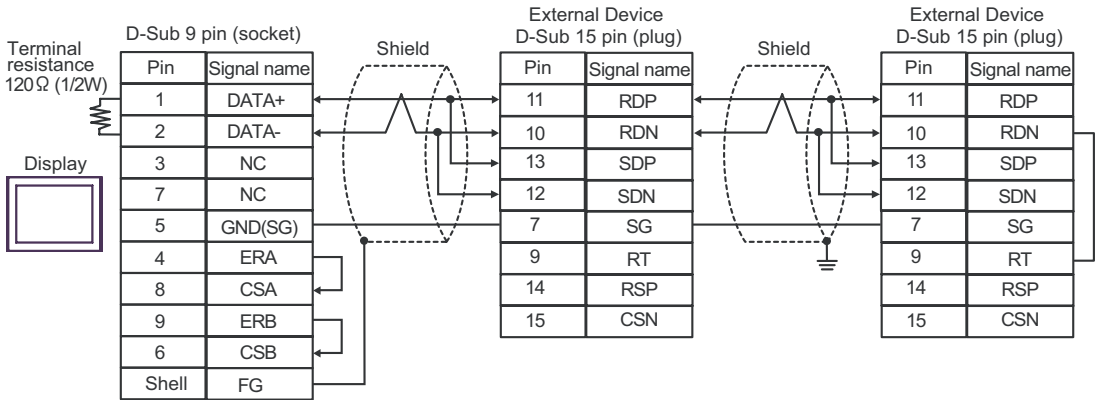


F. When your own cable is used

- 1:1 Connection




- 1:n Connection



Cable Diagram 10

| Display (Connection Port) | Cable | | Remarks |
|--|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) IPC* ² | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 500m or less |
| | B | Your own cable | |
| GP* ³ (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |

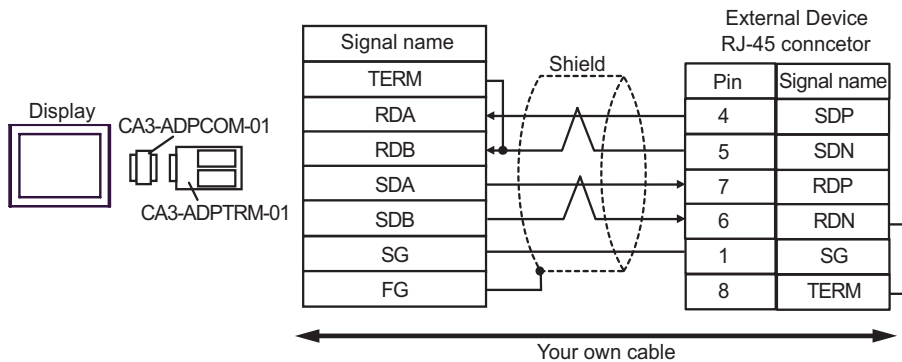
*1 All GP models except AGP-3302B

*2 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 ■ COM Port of IPC (page 8)

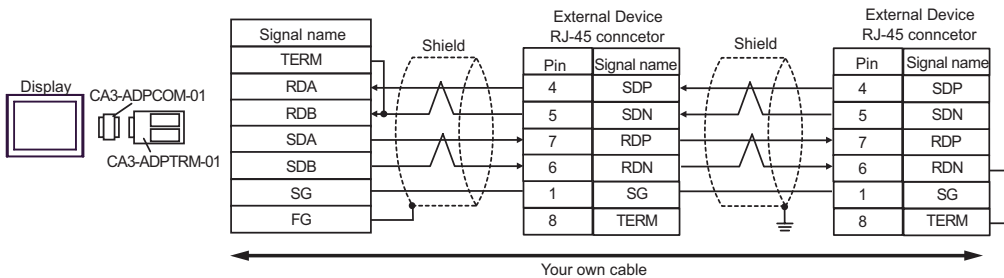
*3 All GP models except GP-3200 series and AGP-3302B

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

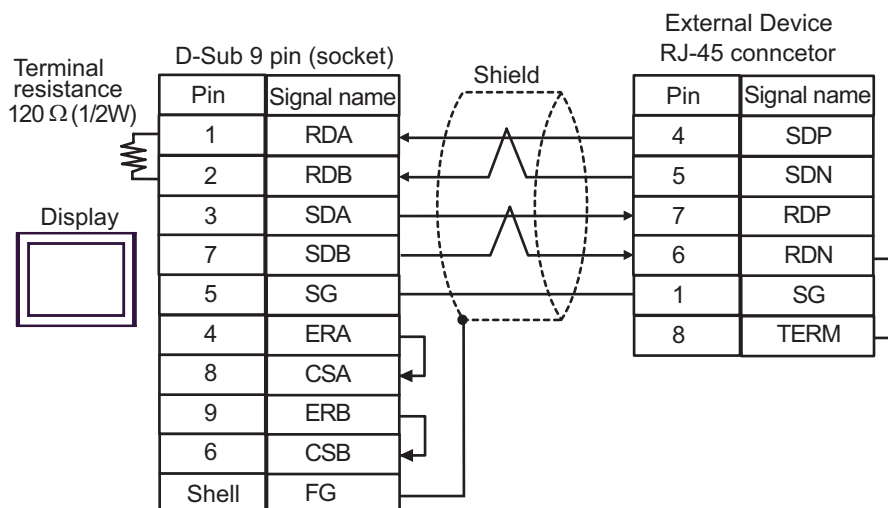


- 1:n Connection

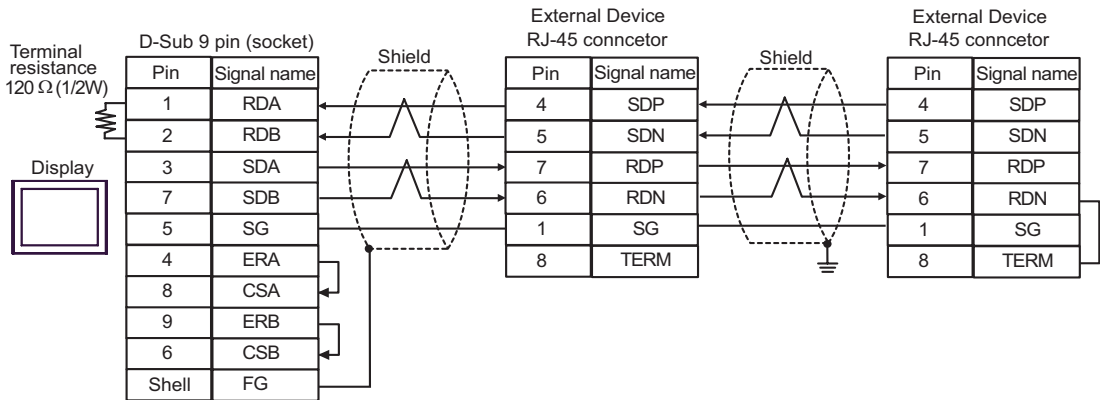


B. When your own cable is used

- 1:1 Connection

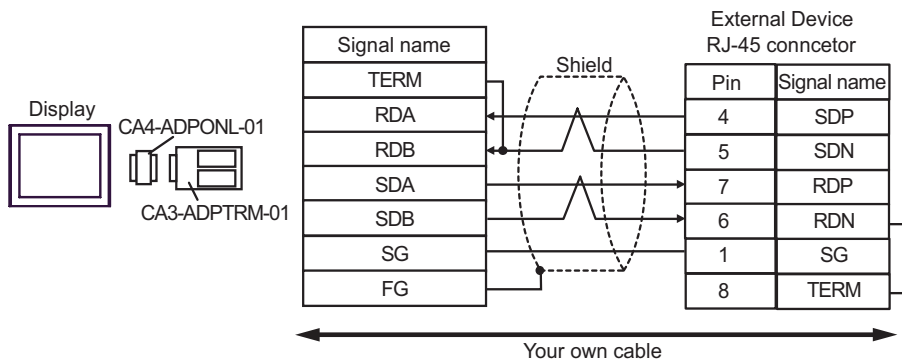


- 1:n Connection

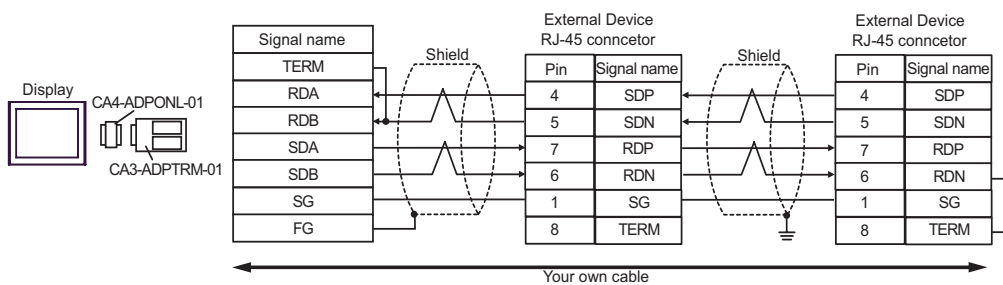


C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

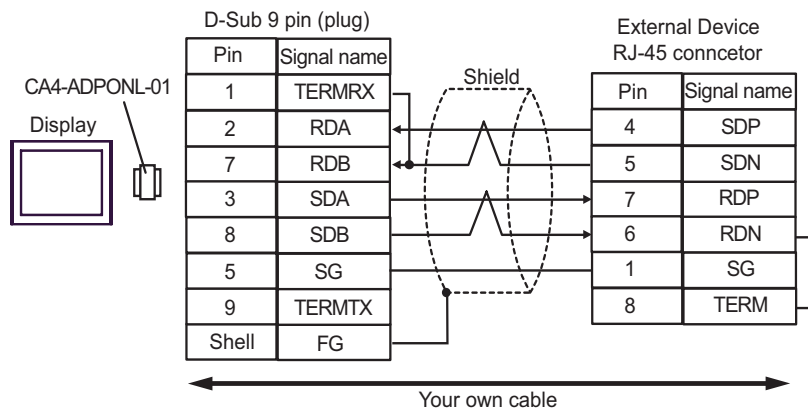


- 1:n Connection

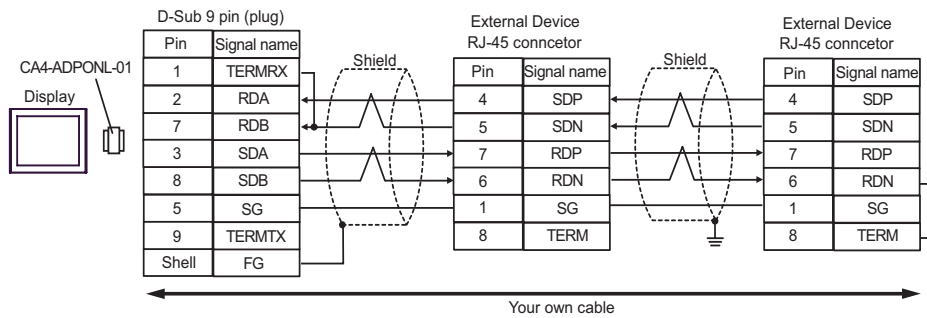


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection



- 1:n Connection




Cable Diagram 11

| Display (Connection Port) | Cable | | Remarks |
|---|-------|--|-------------------------------|
| GP* ¹ (COM1) AGP-3302B (COM2) | A | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | Cable length: 500m or less |
| | B | Your own cable | |
| GP* ² (COM2) | C | Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | D | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable | |
| IPC* ³ | E | COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable | |
| | F | Your own cable | |

*1 All GP models except AGP-3302B

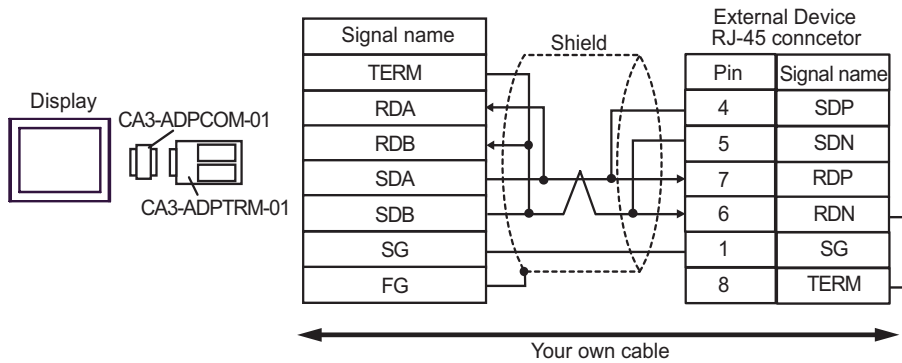
*2 All GP models except GP-3200 series and AGP-3302B

*3 Only the COM port which can communicate by RS-422/485 (2 wire) can be used.

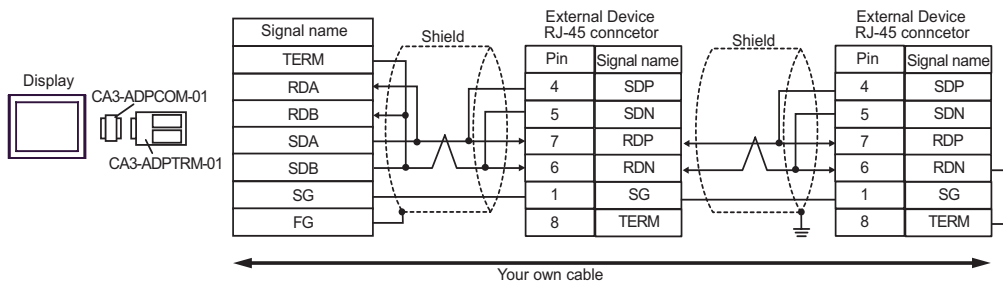
 ■ COM Port of IPC (page 8)

A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

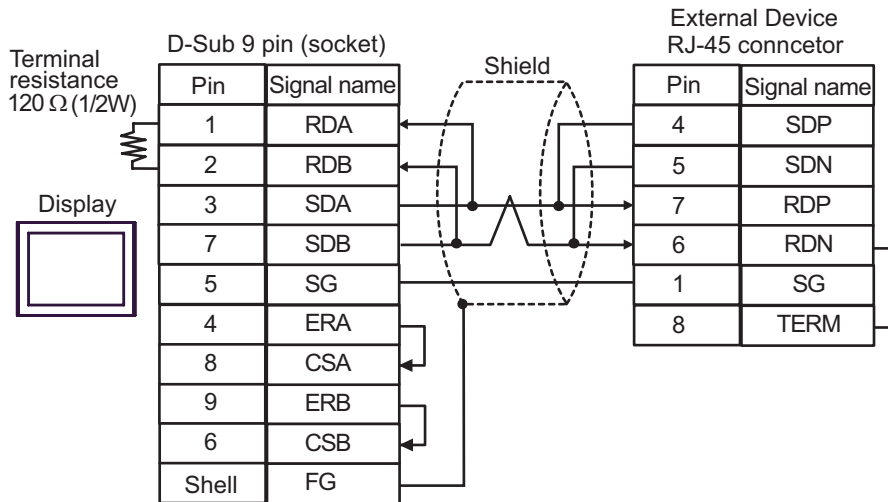


- 1:n Connection

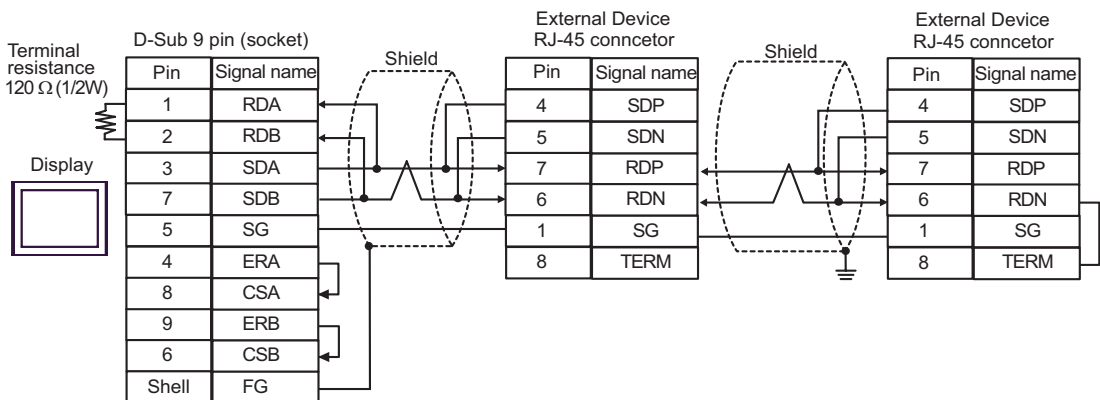


B. When your own cable is used

- 1:1 Connection

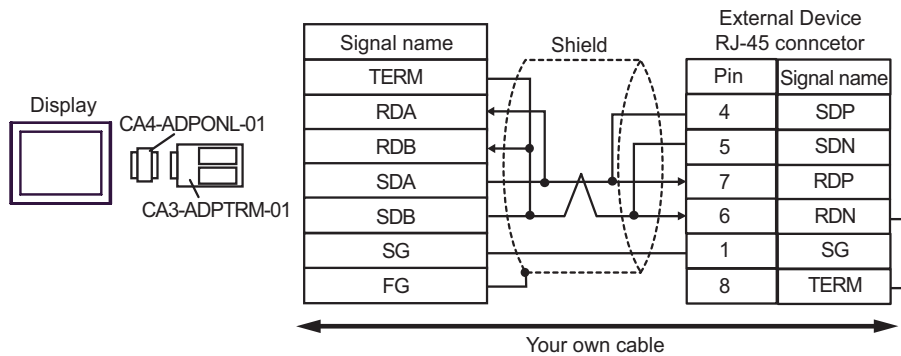


- 1:n Connection

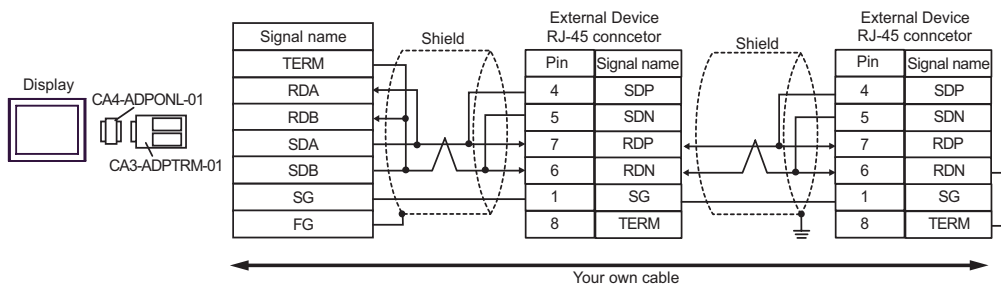


C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

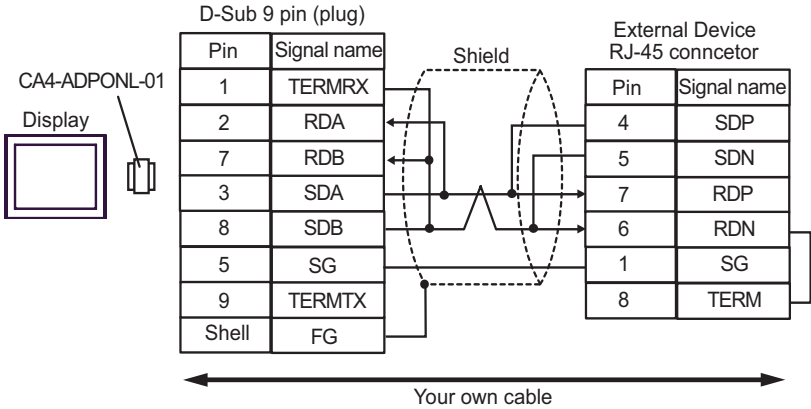


- 1:n Connection

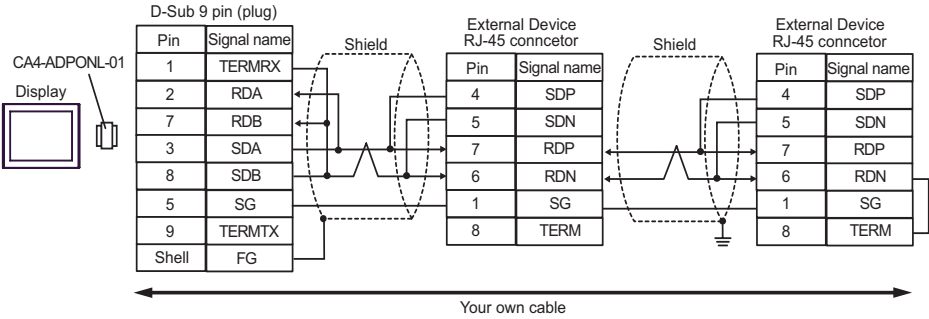


D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable

- 1:1 Connection

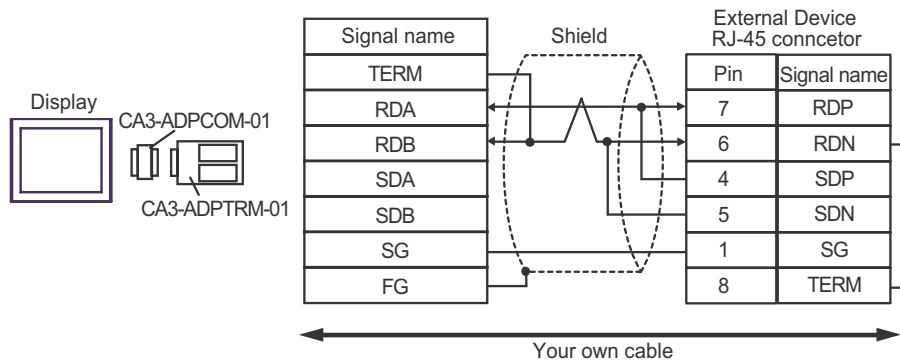


- 1:n Connection

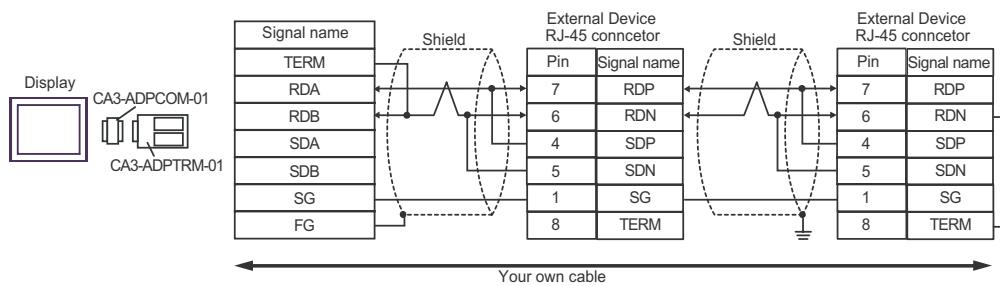


E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable

- 1:1 Connection

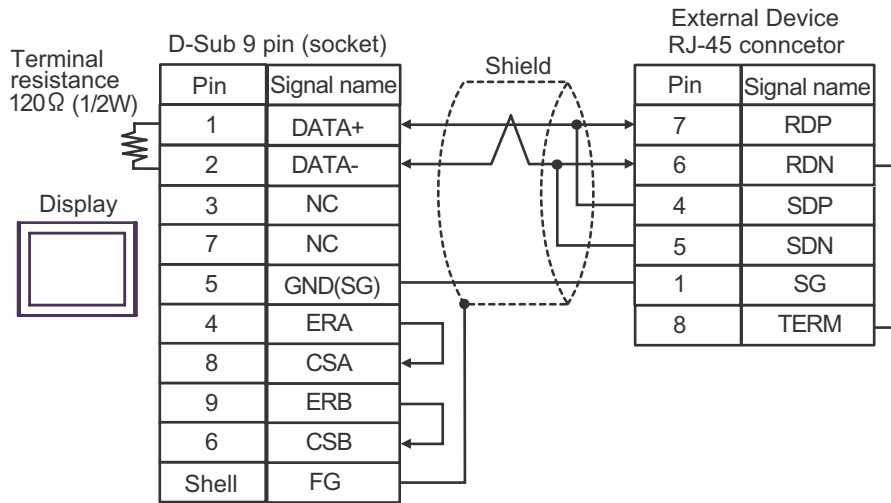


- 1:n Connection

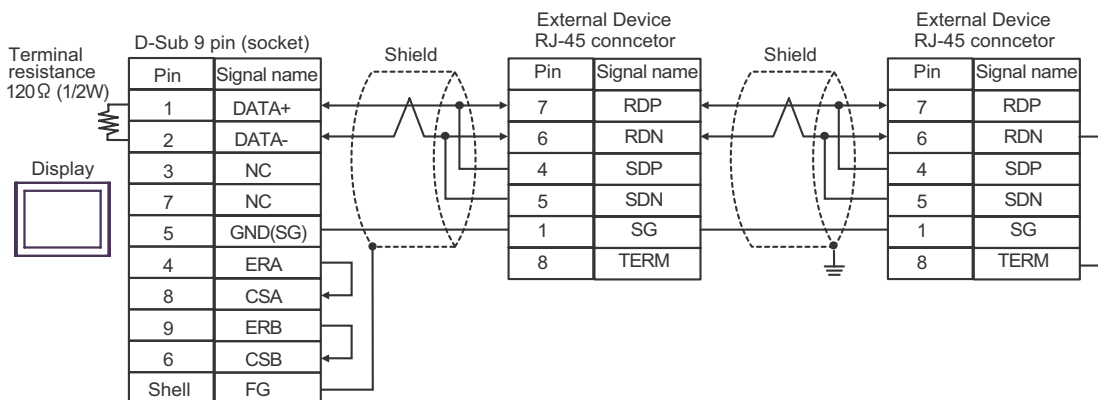


F. When your own cable is used

- 1:1 Connection




- 1:n Connection

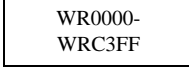





6 Supported Device

Range of supported device address is shown in the table below.

6.1 H/EH-150/MICRO-EH Series

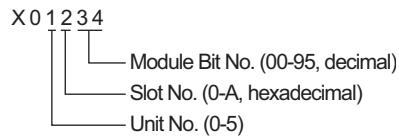
 This address can be specified as system data area.

| Device | Bit Address | Word Address | Double Word Address | 32 bits | Remarks |
|----------------------------------|---------------------|---|---------------------|---|---|
| External Input | X00000-X05A95 | WX0000- WX05A7 | DX0000-DX05A6 | [L / H] | *1 *2 |
| External Output | Y00000-Y05A95 | WY0000- WY05A7 | DY0000-DY05A6 | | *2 |
| Remote Input Relay | X10000-X49995 | WX1000-WX4997 | DX1000-DX4996 | | *1 *3 |
| Remote Output Relay | Y10000-Y49995 | WY1000-WY4997 | DY1000-DY4996 | | *3 |
| Internal Output | R000-R7BF | - | - | | |
| Special Internal Output | R7C0-R7FF | - | - | | |
| Data Area | M0000-M3FFF | WM000-WM3FF | DM000-DM3FE | | |
| First CPU Link | L00000-L03FFF | WL0000-WL03FF | DL0000-DL03FE | | |
| Second CPU Link | L10000-L13FFF | WL1000-WL13FF | DL1000-DL13FE | | |
| On Delay Timer | TD0000 -TD1023 | - | - | | |
| Single-shot Timer | SS0000-SS1023 | - | - | | |
| Watchdog Timer | WDT0000- WDT1023 | - | - | | |
| Mono Stable Timer | MS0000-MS1023 | - | - | | |
| Retentive Timer | TMR0000- TMR1023 | - | - | | |
| Up Counter | CU0000-CU2047 | - | - | | |
| Ring Counter | RCU0000- RCU2047 | - | - | | |
| Up-down Counter | CT0000-CT2047 | - | - | | |
| Timer Counter (Elapsed Value) | - | TC0000-TC2047 | - | | |
| Word Internal Output | - |  WR0000- WRC3FF | DR0000-DRC3FE | |  |
| Special Word Internal Output | - | WRF000- WRF1FF | DRF000-DRF1FE | |  |
| Network Link Area | - | WN0000- WN7FFF | DN0000-DN7FFE |  | |

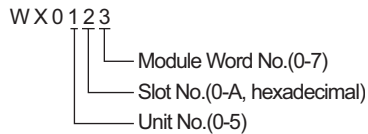
*1 Write disable

*2 Specify as shown below.

(Example) External input unit No.1, Slot No.2, Internal Module Bit No.34

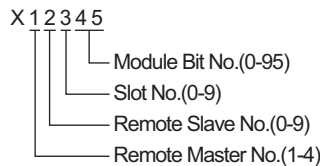


(Example) External input unit No.1, Slot No.2, Internal Module Word No.34

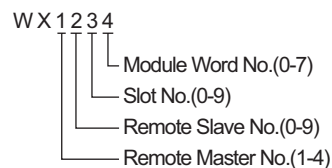


*3 Specify as shown below.

(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Bit No.45



(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Word No.4

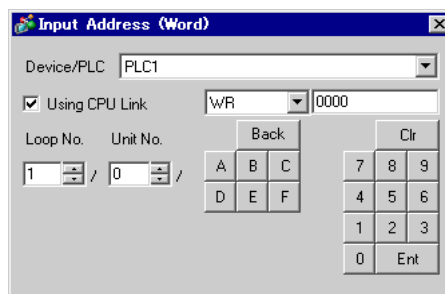


NOTE • Available type and range of device vary depending on CPU. Be sure to check them in each CPU manual before using.

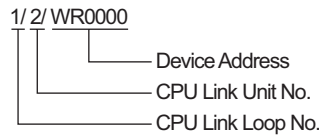
■ How to set address when using the CPU link

Set the check box of "Use CPU Link" to ON.

When using CPU Link, loop No. and unit No. are added to the address.



(Example) Loop No.1, Unit No.2

**NOTE**


- Please refer to the GP-Pro EX Reference Manual for system data area.

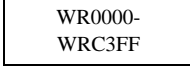


Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (only for direct access method)"

- Please refer to the precautions on manual notation for icons in the table.

☞ "Manual Symbols and Terminology"

6.2 Web Controller Series

 This address can be specified as system data area.

| Device | Bit Address | Word Address | Double Word Address | 32 bit | Remarks |
|----------------------------------|---|---|---|----------------|--|
| External Input | X0000-X0012 X1000-X1015 X2000-X2015 X3000-X3015 X4000-X4015 | WX030-WX031 WX100-WX104 WX200-WX204 WX300-WX304 WX400-WX404 | DX030 DX100-DX103 DX200-DX203 DX300-DX303 DX400-DX403 | [L / H] | *1 |
| External Output | Y0100-Y0109 Y1016-Y1031 Y2016-Y2031 Y3016-Y3031 Y4016-Y4031 | WY40 WY105-WY107 WY205-WY207 WY305-WY307 WY405-WY407 | DY105-DY106 DY205-DY206 DY305-DY306 DY405-DY406 | | |
| Internal Output | R000-R7BF | - | - | | |
| Special Internal Output | R7C0-R7FF | - | - | | |
| Data Area | M0000-M3FFF | WM000-WM3FF | DM000-DM3FE | | |
| On Delay Timer | TD000-TD255 | - | - | | *2 |
| Single-shot Timer | SS000-SS255 | - | - | | *2 |
| Up Counter | CU000-CU255 | - | - | | *2 |
| Up-down Counter | CT000-CT255 | - | - | | *2*3 |
| Timer Counter (Elapsed Value) | - | TC000-TC255 | - | | |
| Word Internal Output | - |  WR0000- WRC3FF | DR0000-DR3FE | | *4  |
| Word Special Internal Output | | WRF000- WRF1FF | DRF000-DRF1FE | |  |

*1 Write disable

*2 Each timer or counter needs to be defined on the ladder program.

*3 Both the Up-down counter Up input and Down input are defined by CT, however, the device names of the External Device are CTU, CTD respectively.

To access CTU, define the corresponding address as CTU on the ladder program of the External Device. Similarly, to access CTD, define the corresponding address as CTD on the ladder program of the External Device.

*4 In case of EH-WD10DR, the address range is "WR0000-WR3FFF", "DR0000-DR3FFE".

NOTE


- Please refer to the GP-Pro EX Reference Manual for system data area.

Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (only for direct access method)"

- Please refer to the precautions on manual notation for icons in the table.

 "Manual Symbols and Terminology"

6.3 EHV Series

 This address can be specified as system data area.

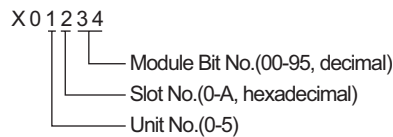
| Device | Bit Address | Word Address | Double Word Address | 32 bits | Remarks |
|---------------------------|---------------------|---------------------|---------------------|---------|---------|
| External Input | X00000-X05A95 | WX0000- WX05A7 | DX0000-DX05A6 | [L/H] | *1 *2 |
| External Output | Y00000-Y05A95 | WY0000- WY05A7 | DY0000-DY05A6 | | *2 |
| Remote Input Relay | X10000-X45A95 | WX1000- WX45A7 | DX1000-DX45A6 | | *1 *3 |
| Remote Output Relay | Y10000-Y45A95 | WY1000- WY45A7 | DY1000-DY45A6 | | *3 |
| Extension External Input | EX00000- EX5A7FF | WEX0000- WEX5A7F | DEX0000- DEX5A7E | | *1 |
| Extension External Output | EY00000- EY5A7FF | WEY0000- WEY5A7F | DEY0000- DEY5A7E | | |
| Internal Output | R000-R7BF | - | - | | |
| Special Internal Output | R7C0-RFFF | - | - | | |
| Data Area | M00000-M7FFFF | WM0000- WM7FFF | DM0000- DM7FFE | | |
| First CPU Link | L00000-L03FFF | WL0000-WL03FF | DL0000-DL03FE | | |
| Second CPU Link | L10000-L13FFF | WL1000-WL13FF | DL1000-DL13FE | | |
| Third CPU Link | L20000-L23FFF | WL2000-WL23FF | DL2000-DL23FE | | |
| Fourth CPU Link | L30000-L33FFF | WL3000-WL33FF | DL3000-DL33FE | | |
| Fifth CPU Link | L40000-L43FFF | WL4000-WL43FF | DL4000-DL43FE | | |
| Sixth CPU Link | L50000-L53FFF | WL5000-WL53FF | DL5000-DL53FE | | |
| Seventh CPU Link | L60000-L63FFF | WL6000-WL63FF | DL6000-DL63FE | | |
| Eighth CPU Link | L70000-L73FFF | WL7000-WL73FF | DL7000-DL73FE | | |
| On Delay Timer | TD0000-TD2559 | - | - | | |
| Off Delay Timer | TDN0000- TDN2559 | - | - | | |
| Single-shot Timer | SS0000-SS2559 | - | - | | |
| Watchdog Timer | WDT0000- WDT2559 | - | - | | |
| Mono Stable Timer | MS0000-MS2559 | - | - | | |
| Retentive Timer | TMR0000- TMR2559 | - | - | | |
| Up-down Counter | CT000-CT511 | - | - | | |
| Up Counter | CU000-CU511 | - | - | | |

| Device | Bit Address | Word Address | Double Word Address | 32 bits | Remarks |
|----------------------------------|-------------------------|---------------------|---------------------|---------|---------|
| Link Counter | RCU000-RCU511 | - | - | [L / H] | |
| Timer Counter (Elapsed Value) | - | TC0000-TC2559 | - | | |
| Word Internal Output | WR00000- WREFFFF | WR0000- WREFFF | DR0000-DREFFE | | |
| Special Word Internal Output | WRF000.0- WRFFFF.F | WRF000- WRFFFF | DRF000-DRFFFE | | |
| Data Area | WN00000.0- WN1FFFF.F | WN00000- WN1FFFF | DN00000- DN1FFFE | | |

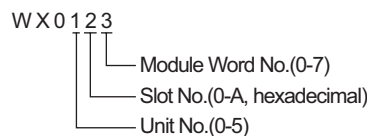
*1 Write disable

*2 Specify as shown below.

(Example) External input unit No.1, Slot No.2, Internal Module Bit No.34

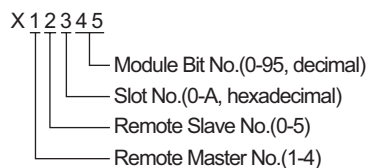


(Example) External input unit No.1, Slot No.2, Internal Module Word No.3

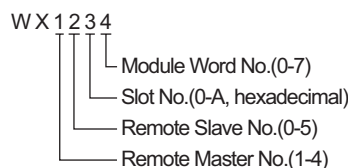


*3 Specify as shown below.

(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Bit No.45



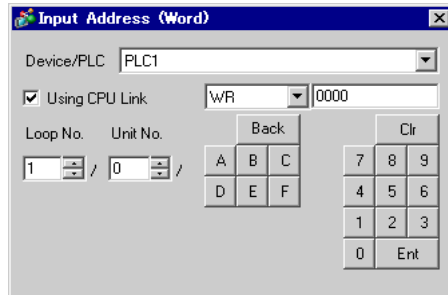
(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Word No.4



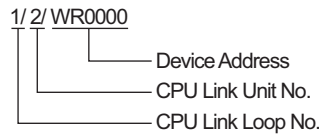
■ When using CPU Link

Set the check box of "Use CPU Link" to ON.

When using CPU Link, loop No. and unit No. are added to the address.



(Example) Loop No.1, Unit No.2


NOTE

- Please refer to the GP-Pro EX Reference Manual for system data area.
- Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (only for direct access method)"
- Please refer to the precautions on manual notation for icons in the table.
- ☞ "Manual Symbols and Terminology"

7 Device Code and Address Code

Use device code and address code when you select "Device Type & Address" for the address type in data displays.

7.1 H/EH-150/MICRO-EH Series

| Device | Device Name | Device Code (HEX) | Address Code |
|-------------------------------|-------------|-------------------|--------------|
| External Input | X | 80 | Word Address |
| | WX | | Word Address |
| | DX | 20 | Word Address |
| External Output | Y | 81 | Word Address |
| | WY | | Word Address |
| | DY | 21 | Word Address |
| Data Area | M | 82 | Word Address |
| | WM | | Word Address |
| | DM | 22 | Word Address |
| CPU Link | L | 83 | Word Address |
| | WL | | Word Address |
| | DL | 23 | Word Address |
| Timer Counter (Elapsed Value) | TC | 60 | Word Address |
| Word Internal Output | WR | 00 | Word Address |
| | DR | 24 | Word Address |
| Network Link Area | WN | 01 | Word Address |
| | DN | 25 | Word Address |

7.2 Web Controller Series

| Device | Device Name | Device Code (HEX) | Address Code |
|--|-------------|-------------------|--------------|
| External Input | X | 80 | Word Address |
| | WX | | Word Address |
| | DX | 20 | Word Address |
| External Output | Y | 81 | Word Address |
| | WY | | Word Address |
| | DY | 21 | Word Address |
| Data Area | M | 82 | Word Address |
| | WM | | Word Address |
| | DM | 22 | Word Address |
| Timer Counter (Elapsed Value) | TC | 60 | Word Address |
| Word Internal Output Word Special Internal Output | WR | 00 | Word Address |
| | DR | 24 | Word Address |

7.3 EHV Series

| Device | Device Name | Device Code (HEX) | Address Code |
|-------------------------------|-------------|-------------------|--------------|
| External Input | X | 80 | Word Address |
| | WX | | Word Address |
| | DX | 20 | Word Address |
| External Output | Y | 81 | Word Address |
| | WY | | Word Address |
| | DY | 21 | Word Address |
| Extension External Input | EX | 84 | Word Address |
| | WEX | | Word Address |
| | DEX | 26 | Word Address |
| Extension External Output | EY | 85 | Word Address |
| | WEY | | Word Address |
| | DEY | 27 | Word Address |
| Data Area | M | 82 | Word Address |
| | WM | | Word Address |
| | DM | 22 | Word Address |
| CPU Link | L | 83 | Word Address |
| | WL | | Word Address |
| | DL | 23 | Word Address |
| Word Internal Output | WR | 00 | Word Address |
| | DR | 24 | Word Address |
| Data Area | WN | 01 | Word Address |
| | DN | 25 | Word Address |
| Timer Counter (Elapsed Value) | TC | 60 | Word Address |

8 Error Messages

Error messages are displayed on the screen of the Display as follows: "No. :Device Name:Error Message(Error Occurrence Area)". Each description is shown below.

| Item | Description |
|-----------------------|---|
| No. | Error No. |
| Device Name | Name of the External Device where error occurs. Device name is a title of the External Device set with GP-Pro EX.(Initial value[PLC1]) |
| Error Message | Displays messages related to the error which occurs. |
| Error Occurrence Area | Displays IP address or device address of the External Device where error occurs, or error codes received from the External Device. <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">NOTE</div> <ul style="list-style-type: none"> IP address is displayed such as "IP address(Decimal): MAC address(Hex)". Device address is displayed such as "Address: Device address". Received error codes are displayed such as "Hex[Hex]". |

Display Examples of Error Messages

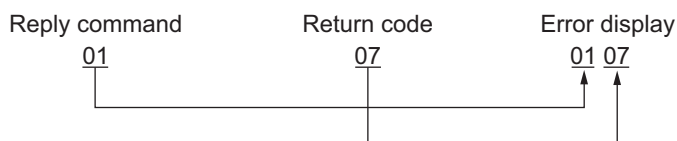
"RHAA035:PLC1: Error has been responded for device write command (Error Code: [02H,02H])"

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- NOTE**
- Please refer to the manual of the External Device for more detail of received error codes.
 - Please refer to "When an error message is displayed (Error code list)" of "Maintenance/Troubleshooting" for a common error message to the driver.
-

■ Driver-Specific Error Codes

Error codes are sent as separated 2 bytes codes The Display displays the error number using 1-byte code.

Example:



| Error Code | Description |
|------------|--|
| 01, 05 | The requested number of points is beyond the designated range. |
| 01, 06 | Designated device does not exist. |
| 01, 07 | Designated device address is beyond the range. |

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- NOTE**
- Please refer to the manual of the External Device for more detail of received error codes.
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